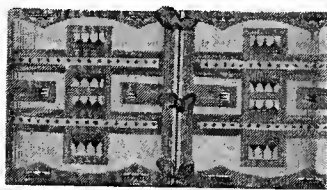


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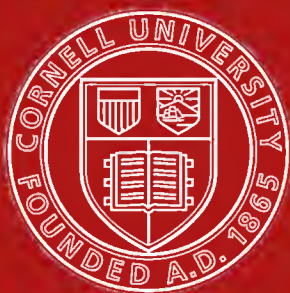


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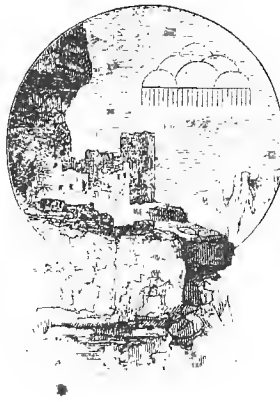
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ZUÑI FETICHES

BY

FRANK HAMILTON CUSHING

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FRANK HAMILTON CUSHING.

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ZUNI FETICHES.

BY FRANK H. CUSHING.

ZUNI PHILOSOPHY.

The Á-shi-wi, or Zuñis, suppose the sun, moon, and stars, the sky, earth, and sea, in all their phenomena and elements; and all inanimate objects, as well as plants, animals, and men, to belong to one great system of all-conscious and interrelated life, in which the degrees of relationship seem to be determined largely, if not wholly, by the degrees of resemblance. In this system of life the starting point is man, the most finished, yet the lowest organism; at least, the lowest because most dependent and least mysterious. In just so far as an organism, actual or imaginary, resembles him, is it believed to be related to him and correspondingly mortal; in just so far as it is mysterious, is it considered removed from him, further advanced, powerful, and immortal. It thus happens that the animals, because alike mortal and endowed with similar physical functions and organs, are considered more nearly related to man than are the gods; more nearly related to the gods than is man, because more mysterious, and characterized by specific instincts and powers which man does not of himself possess. Again, the elements and phenomena of nature, because more mysterious, powerful and immortal, seem more closely related to the higher gods than are the animals; more closely related to the animals than are the higher gods, because their manifestations often resemble the operations of the former.

In consequence of this, and through the confusion of the subjective with the objective, any element or phenomenon in nature, which is believed to possess a personal existence, is endowed with a personality analogous to that of the animal whose operations most resemble its manifestation. For instance, lightning is often given the form of a serpent, with or without an arrow-pointed tongue, because its course through the sky is serpentine, its stroke instantaneous and destructive; yet it is named Wí-lo-lo-a-ne, a word derived not from the name of the serpent itself, but from that of its most obvious trait, its gliding, zigzag motion. For this reason, the serpent is supposed to be more nearly related to lightning than to man; more nearly related to man than is lightning, because mortal and less mysterious. As further

illustrative of the interminable relationships which are established on resemblances fancied or actual, the flint arrow-point may be cited. Although fashioned by man, it is regarded as originally the gift or "flesh" of lightning, as made by the power of lightning, and rendered more effective by these connections with the dread element; pursuant of which idea, the zigzag or lightning marks are added to the shafts of arrows. A chapter might be written concerning this idea, which may possibly help to explain the Celtic, Scandinavian, and Japanese beliefs concerning "elf-shafts," and "thunder-stones," and "bolts."

In like manner, the supernatural beings of man's fancy—the "master existences"—are supposed to be more nearly related to the personalities with which the elements and phenomena of nature are endowed than to either animals or men; because, like those elements and phenomena, and unlike men and animals, they are connected with remote tradition in a manner identical with their supposed existence to-day, and therefore are considered immortal.

To the above descriptions of the supernatural beings of Zuñi Theology should be added the statement that all of these beings are given the forms either of animals, of monsters compounded of man and beast, or of man. The animal gods comprise by far the largest class.

In the Zuñi, no general name is equivalent to "the gods," unless it be the two expressions which relate only to the higher or creating and controlling beings—the "causes," Creators and Masters, "Pí-kwain-á-hâ-i" (Surpassing Beings), and "Á-tä-tchu" (All-fathers), the beings superior to all others in wonder and power, and the "Makers" as well as the "Finishers" of existence. These last are classed with the supernatural beings, personalities of nature, object beings, etc., under one term—

a. Í-shothl-ti-mon-á-hâ-i, from *í-shothl-ti-mo-na*=ever recurring, immortal, and *á-hâ-i*=beings.

Likewise, the animals and animal gods, and sometimes even the supernatural beings, having animal or combined animal and human personalities, are designated by one term only—

b. K'ia-pin-á-hâ-i, from *k'ia-pin-na*=raw, and *á-hâ-i*=beings. Of these, however, three divisions are made:

(1.) K'ia-pin-á-hâ-i=game animals, specifically applied to those animals furnishing flesh to man.

(2.) K'ia-shem-á-hâ-i, from *k'ia-we*=water, *she-man*=wanting, and *á-hâ-i*=beings, the water animals, specially applied not only to them, but also to all animals and animal gods supposed to be associated sacredly with water, and through which water is supplicated.

(3.) Wé-ma-á-hâ-i, from *we-ma*=prey, and *á-hâ-i*=beings, "Prey Beings," applied alike to the prey animals and their representatives among the gods. Finally we have the terms—

c. Ak-ná-á-hâ-i, from *ák-na*=done, cooked, or baked, ripe, and *á-hâ-i*=beings, the "Done Beings," referring to mankind; and

d. Äsh-i-k'ia-á-hâ-i, from *ä'sh-k'ia*=made, finished, and *á-hâ-i*=beings, "Finished Beings," including the *dead* of mankind.

That very little distinction is made between these orders of life, or that they are at least closely related, seems to be indicated by the absence from the entire language of any general term for *God*. True, there are many beings in Zuñi Mythology godlike in attributes, anthropomorphic, monstrous, and elemental, which are known as the "Finishers or makers of the paths of life," while the most superior of all is called the "Holder of the paths (of our lives)," *Hâ'-no-o-na wi-la-po-na*. Not only these gods, but all supernatural beings, men, animals, plants, and many objects in nature, are regarded as personal existences, and are included in the one term *á-hâ-i*, from *á*, the plural particle signifying "all," and *hâ-i*, being or life,="Life," "the Beings." This again leads us to the important and interesting conclusion that all beings, whether deistic and supernatural, or animistic and mortal, are regarded as belonging to one system; and that they are likewise believed to be related by blood seems to be indicated by the fact that human beings are spoken of as the "children of men," while *all* other beings are referred to as "the Fathers," the "All-fathers," and "Our Fathers."

THE WORSHIP OF ANIMALS.

It naturally follows from the Zuñi's philosophy of life, that his worship, while directed to the more mysterious and remote powers of nature, or, as he regards them, existences, should relate more especially to the animals; that, in fact, the animals, as more nearly related to himself than are these existences, more nearly related to these existences than to himself, should be frequently made to serve as mediators between them and him. We find this to be the case. It follows likewise that in his inability to differentiate the objective from the subjective, he should establish relationships between natural objects which resemble animals and the animals themselves; that he should even ultimately imitate these animals for the sake of establishing such relationships, using such accidental resemblances as his *motives*, and thus developing a conventionality in all art connected with his worship. It follows that the special requirements of his life or of the life of his ancestors should influence him to select as his favored mediators or aids those animals which seemed best fitted, through peculiar characteristics and powers, to meet these requirements. This, too, we find to be the case, for, pre-eminently a man of war and the chase, like all savages, the Zuñi has chosen above all other animals those which supply him with food and useful material, together with the animals which prey on them, giving preference to the latter. Hence, while the name of the former class is applied preferably as a *general* term to all animals and animal gods, as

previously explained, the name of the latter is used with equal preference as a term for all fetiches (Wé-ma-we), whether of the prey animals themselves or of other animals and beings. Of course it is equally natural, since they are connected with man both in the scale of being and in the power to supply his physical wants more nearly than are the higher gods, that the animals or animal gods should greatly outnumber and even give character to all others. We find that the Fetiches of the Zuñis relate mostly to the animal gods, and principally to the prey gods.

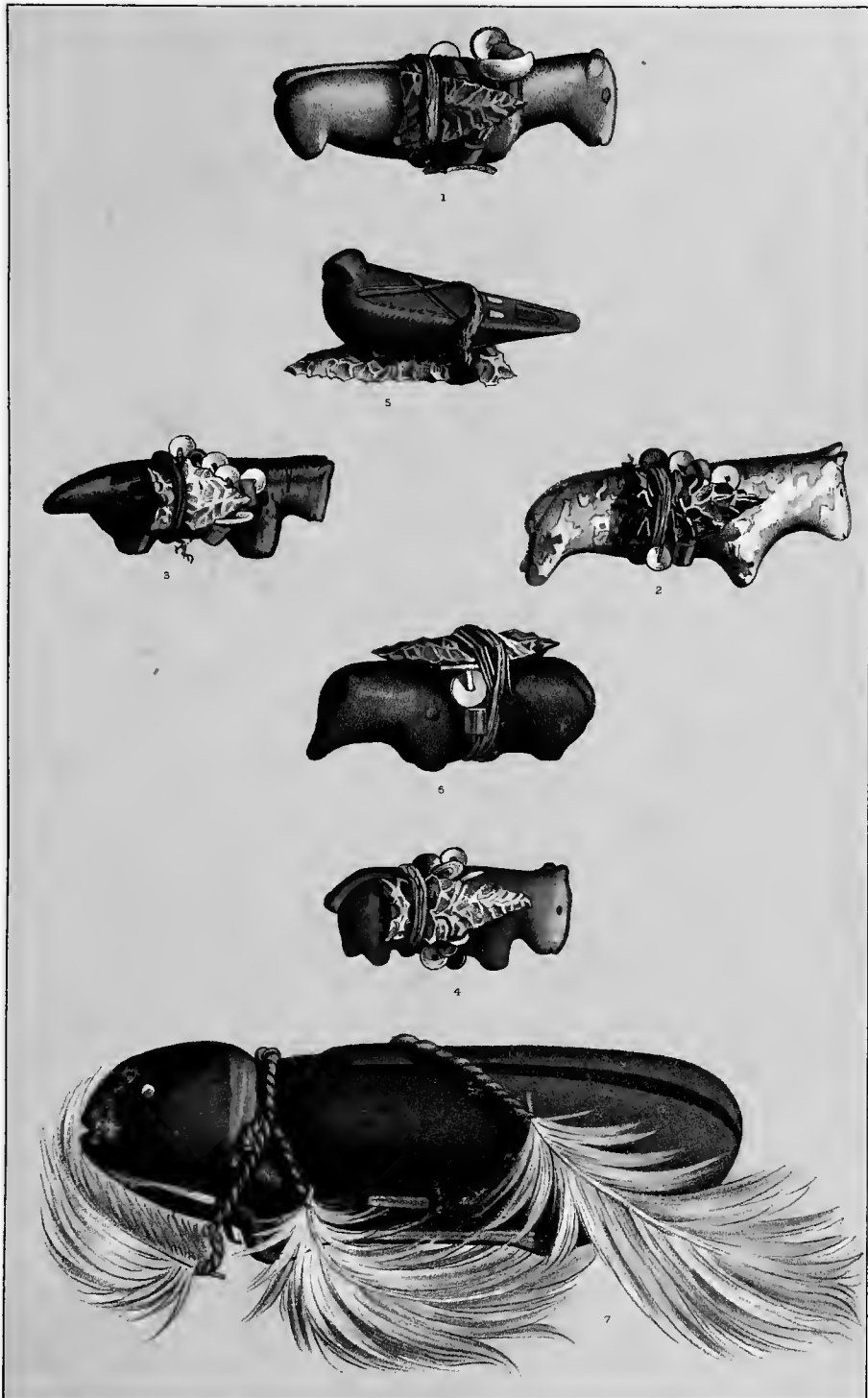
ORIGIN OF ZUÑI FETICHISM.

This fetichism seems to have arisen from the relationships heretofore alluded to, and to be founded on the myths which have been invented to account for those relationships. It is therefore not surprising that those fetiches most valued by the Zuñis should be either natural concretions (Plate I, Fig. 6), or objects in which the evident original resemblance to animals has been only heightened by artificial means (Plate IV, Fig. 7; Plate V, Fig. 4; Plate VI, Figs. 3, 6, 8; Plate VIII, Figs. 1, 3, 4, 5; Plate IX, Fig. 1).

Another highly prized class of fetiches are, on the contrary, those which are elaborately carved, but show evidence, in their polish and dark patina, of great antiquity. They are either such as have been found by the Zuñis about pueblos formerly inhabited by their ancestors or are tribal possessions which have been handed down from generation to generation, until their makers, and even the fact that they were made by any member of the tribe, have been forgotten. It is supposed by the priests (Á-shi-wa-ni) of Zuñi that not only these, but all true fetiches, are either actual petrifications of the animals they represent, or were such originally. Upon this supposition is founded the following tradition, taken, as are others to follow, from a remarkable mythologic epic, which I have entitled the Zuñi Iliad.

THE ZUÑI ILIAD.

Although oral, this epic is of great length, metrical, rythmical even in parts, and filled with archaic expressions nowhere to be found in the modern Zuñi. It is to be regretted that the original diction cannot here be preserved. I have been unable, however, to record literally even portions of this piece of aboriginal literature, as it is jealously guarded by the priests, who are its keepers, and is publicly repeated by them only once in four years, and then only in the presence of the priests of the various orders. As a member of one of the latter, I was enabled to



T. Sinclair & Son, lith., Phila.

PREY GOD FETICHES.

listen to one-fourth of it during the last recitation, which occurred in February, 1881. I therefore give mere abstracts, mostly furnished from memory, and greatly condensed, but pronounced correct, so far as they go, by one of the above-mentioned priests.

THE DRYING OF THE WORLD.

In the days when all was new, men lived in the four caverns of the lower regions (Á-wi-tën té-huthl-na-kwîn=the "Four Wombs of the World"). In the lowermost one of these men first came to know of their existence. It was dark, and as men increased they began to crowd one another and were very unhappy. Wise men came into existence among them, whose children supplicated them that they should obtain deliverance from such a condition of life.

It was then that the "Holder of the Paths of Life," the Sun-father, created from his own being two children, who fell to earth for the good of all beings (Ū-a-nam áteh-pi-ah-k'oa). The Sun-father endowed these children with immortal youth, with power even as his own power, and created for them a bow (Á-mi-to-lan-ne,= the Rain Bow) and an arrow (Wí lo-lo-a-ne, = Lightning). For them he made also a shield like unto his own, of magic power, and a knife of flint, the great magic war knife (Sá-wa-ni-k'ia ä'-tchi-ë-ne). The shield (Pi-al-lan-ne) was a mere network of sacred cords (Pi-tsau-pi-wi, = cotton) on a hoop of wood, and to the center of this net-shield was attached the magic knife.

These children cut the face of the world with their magic knife, and were borne down upon their shield into the caverns in which all men dwelt. There, as the leaders of men, they lived with their children, mankind.

They listened to the supplications of the priests. They built a ladder to the roof of the first cave and widened with their flint knife and shield the aperture through which they had entered. Then they led men forth into the second cavern, which was larger and not quite so dark.

Ere long men multiplied and bemoaned their condition as before. Again they besought their priests, whose supplications were once more listened to by the divine children. As before, they led all mankind into the third world. Here it was still larger and like twilight, for the light of the Sun himself sifted down through the opening. To these poor creatures (children) of the dark the opening itself seemed a blazing sun.

But as time went on men multiplied even as they had before, and at last, as at first, bemoaned their condition. Again the two children listened to their supplications, and it was then that the children of men first saw the light of their father, the Sun.

The world had been covered with water. It was damp and unstable. Earthquakes disturbed its surface. Strange beings rose up through it, monsters and animals of prey. As upon an island in the middle of a great water, the children of men were led forth into the light of their father, the Sun. It blinded and heated them so that they cried to one

another in anguish, and fell down, and covered their eyes with their bare hands and arms, for men were black then, like the caves they came from, and naked, save for a covering at the loins of rush, like yucca fiber, and sandals of the same, and their eyes, like the owl's, were unused to the daylight.

Eastward the two children began to lead them, toward the Home of the Sun-father.

Now, it happened that the two children saw that the earth must be dried and hardened, for wherever the foot touched the soil water gathered—as may be seen even in the rocks to-day—and the monsters which rose forth from the deep devoured the children of men. Therefore they consulted together and sought the advice of their creator, the Sun-father. By his directions, they placed their magic shield upon the wet earth. They drew four lines a step apart upon the soft sands. Then the older brother said to the younger, "Wilt thou, or shall I, take the lead?"

"I will take the lead," said the younger.

"Stand thou upon the last line," said the older.

And when they had laid upon the magic shield the rainbow, and across it the arrows of lightning, toward all the quarters of the world, the younger brother took his station facing toward the right. The older brother took his station facing toward the left. When all was ready, both braced themselves to run. The older brother drew his arrow to the head, let fly, and struck the rainbow and the lightning arrows midway, where they crossed. Instantly, *thlu-tchu!* shot the arrows of lightning in every direction, and fire rolled over the face of the earth, and the two gods followed the courses of their arrows of lightning.

Now that the surface of the earth was hardened, even the animals of prey, powerful and like the fathers (gods) themselves, would have devoured the children of men; and the Two thought it was not well that they should all be permitted to live, "for," said they, "alike will the children of men and the children of the animals of prey multiply themselves. The animals of prey are provided with talons and teeth; men are but poor, the finished beings of earth, therefore the weaker."

Whenever they came across the pathway of one of these animals, were he great mountain lion or but a mere mole, they struck him with the fire of lightning which they carried in their magic shield. *Thlu!* and instantly he was shriveled and burnt into stone.

Then said they to the animals that they had thus changed to stone, "That ye may not be evil unto men, but that ye may be a great good unto them, have we changed you into rock everlasting. By the magic breath of prey, by the heart that shall endure forever within you, shall ye be made to serve instead of to devour mankind."

Thus was the surface of the earth hardened and scorched and many of all kinds of beings changed to stone. Thus, too, it happens that we find, here and there throughout the world, their forms, sometimes large

like the beings themselves, sometimes shriveled and distorted. And we often see among the rocks the forms of many beings that live no longer, which shows us that all was different in the "days of the new."

Of these petrifications, which are of course mere concretions or strangely eroded rock-forms, the Zuñis say, "Whomsoever of us may be met with the light of such great good fortune may *see* (discover, find) them and should treasure them for the sake of the sacred (magic) power which was given them in the days of the new. For the spirits of the We-ma-á-hâ-i still live, and are pleased to receive from us the Sacred Plume (of the heart—Lă-sho-a-ni), and sacred necklace of treasure (Thlâ-thle-a); hence they turn their ears and the ears of their brothers in our direction that they may hearken to our prayers (sacred talks) and know our wants."

POWER OF THE FETICHES.

This tradition not only furnishes additional evidence relative to the preceding statements, but also, taken in connection with the following belief, shows quite clearly to the native wherein lies the power of his fetiches. It is supposed that the hearts of the great animals of prey are infused with a spirit or medicine of magic influence over the hearts of the animals they prey upon, or the game animals (K'ia-pin-á-hâ-i); that their breaths (the "Breath of Life"—Hâ-i-an-pi-nan-ne—and soul are synonymous in Zuñi Mythology), derived from their hearts, and breathed upon their prey, whether near or far, never fail to overcome them, piercing their hearts and causing their limbs to stiffen, and the animals themselves to lose their strength. Moreover, the roar or cry of a beast of prey is accounted its Sá-wa-ni-k'ia, or magic medicine of destruction, which, heard by the game animals, is fatal to them, because it charms their senses, as does the breath their hearts. Since the mountain lion, for example, lives by the blood ("life fluid") and flesh of the game animals, and by these alone, he is endowed not only with the above powers, but with peculiar powers in the senses of sight and smell. Moreover, these powers, as derived from his heart, are preserved in his fetich, since his heart still lives, even though his person be changed to stone.

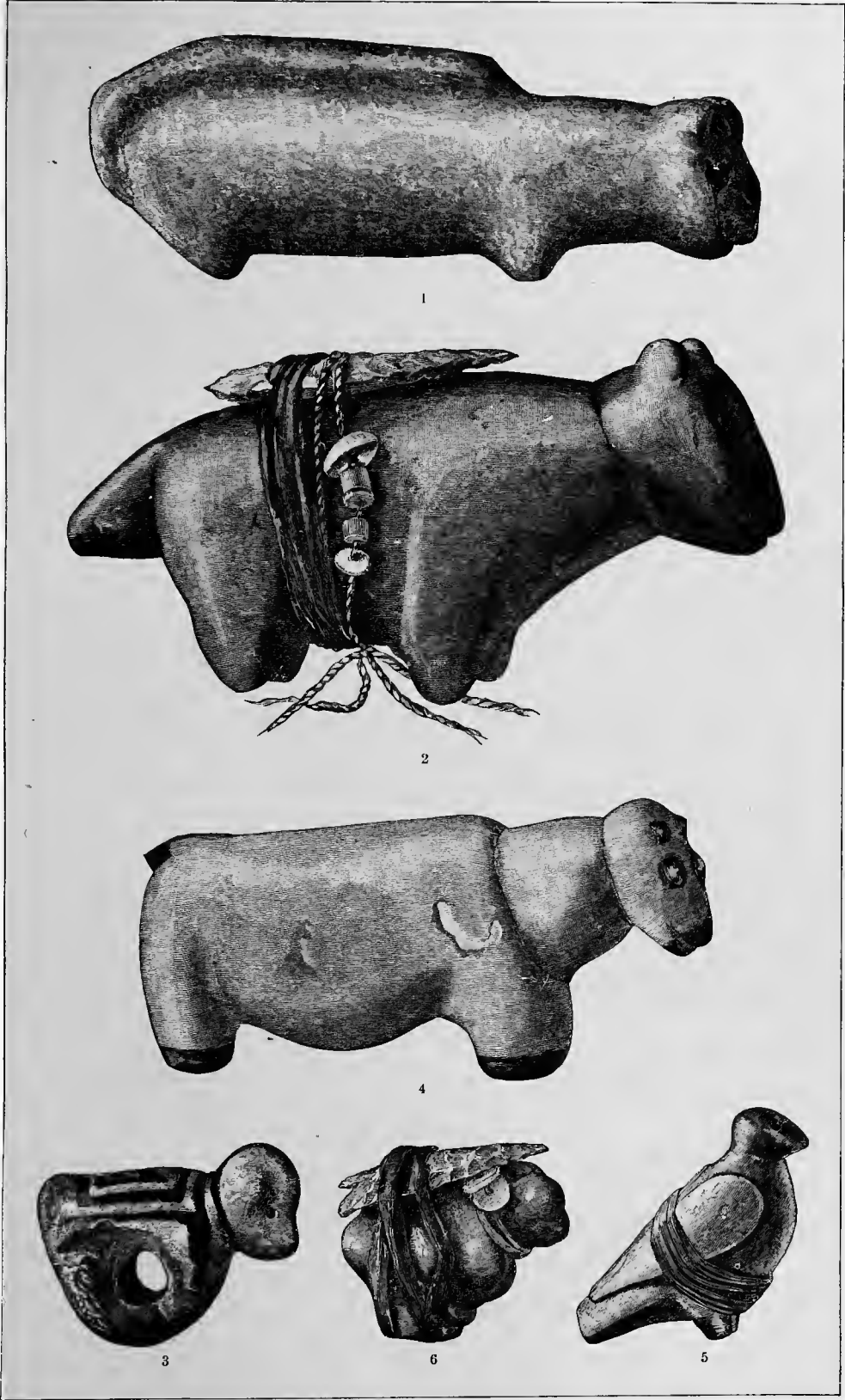
PREY GODS OF THE SIX REGIONS.

THEIR ORIGIN.

Therefore it happens that the use of these fetiches is chiefly connected with the chase. To this, however, there are some exceptions. One of these may be partly explained by the following myth concerning Pó-shai-an-k'ia, the God (Father) of the Medicine societies or sacred esoteric orders, of which there are twelve in Zuñi, and others among the different pueblo tribes. He is supposed to have appeared in human form, poorly clad, and therefore reviled by men; to have taught the ancestors of the Zuñi, Taos, Oraibi, and Coconino Indians their agricultural and other arts, their systems of worship by means of plumed and painted prayer-sticks; to have organized their medicine societies; and then to have disappeared toward his home in Shí-pä-pu-li-ma (from *shí-pi-a*=mist, vapor; *u-lin*=surrounding; and *i-mo-na*=sitting place of—"The mist-enveloped city"), and to have vanished beneath the world, whence he is said to have departed for the home of the Sun. He is still the conscious auditor of the prayers of his children, the invisible ruler of the spiritual Shí-pä-pu-li-ma, and of the lesser gods of the medicine orders, the principal "Finisher of the Paths of our Lives." He is, so far as any identity can be established, the "Montezuma" of popular and usually erroneous Mexican tradition.

PÓ-SHAI-AN-K'IA.

In ancient times, while yet all beings belonged to one family, Pó-shai-an-k'ia, the father of our sacred bands, lived with his children (disciples) in the City of the Mists, the middle place (center) of the Medicine societies of the world. There he was guarded on all sides by his six warriors, Á-pi-thlan-shí-wa-ni (*pi-thlan*=bow, *shí-wa-ni*=priests), the prey gods; toward the North by the Mountain Lion (Long Tail); toward the West by the Bear (Clumsy Foot); toward the South by the Badger (Black Mark Face); toward the East by the Wolf (Hang Tail); above by the Eagle (White Cap); and below by the Mole. When he was about to go forth into the world, he divided the universe into six regions, namely, the North (Pí'sh-lan-kwín táh-na=Direction of the Swept or Barren place); the West (K'íä'-li-shi-in-kwíp táh-na=Direction of the Home of the Waters); the South (Á-la-ho-in-kwín táh-na=Direction of the Place of the Beautiful Red); the East (Té-lu-a-in-kwín táh-na=Direction of the Home of Day); the Upper Regions (Í-ya-ma-in-kwín táh-na=Direction of the Home of the High); and the Lower Regions (Ma-ne-lam-in-kwín táh-na=Direction of the Home of the Low)."



PREY GOD FETICHES OF THE SIX REGIONS.

All, save the first of these terms, are archaic. The modern names for the West, South, East, Upper and Lower Regions signifying respectively—"The Place of Evening," "The Place of the Salt Lake" (Las Salinas), "The Place whence comes the Day," "The Above," and "The Below."

In the center of the great sea of each of these regions stood a very ancient sacred place (Té-thlä-shi-na-kwín), a great mountain peak. In the North was the Mountain Yellow, in the West the Mountain Blue, in the South the Mountain Red, in the East the Mountain White, above the Mountain All-color, and below the Mountain Black.

We do not fail to see in this clear reference to the natural colors of the regions referred to—to the barren north and its auroral hues, the west with its blue Pacific, the rosy south, the white daylight of the east, the many hues of the clouded sky, and the black darkness of the "caves and holes of earth." Indeed, these colors are used in the pictographs and in all the mythic symbolism of the Zuñis, to indicate the directions or regions respectively referred to as connected with them.

Then said Pó-shai-ay-k'ia to the Mountain Lion (Plate II, Fig. 1), "Long Tail, thou art stout of heart and strong of will. Therefore give I unto thee and unto thy children forever the mastership of the gods of prey, and the guardianship of the great Northern World (for thy coat is of yellow), that thou guard from that quarter the coming of evil upon my children of men, that thou receive in that quarter their messages to me, that thou become the father in the North of the sacred medicine orders all, that thou become a Maker of the Paths (of men's lives)."

Thither went the Mountain Lion. Then said Pó-shai-ay-k'ia to the Bear (Plate II, Fig. 2), "Black Bear, thou art stout of heart and strong of will. Therefore make I thee the younger brother of the Mountain Lion, the guardian and master of the West, for thy coat is of the color of the land of night," etc.

To the Badger (Plate II, Fig. 3), "Thou art stout of heart but *not* strong of will. Therefore make I thee the younger brother of the Bear, the guardian and master of the South, for thy coat is ruddy and marked with black and white equally, the colors of the land of summer, which is red, and stands between the day and the night, and thy homes are on the sunny sides of the hills," etc.

To the White Wolf (Plate II, Fig. 4), "Thou art stout of heart and strong of will. Therefore make I thee the younger brother of the Badger, the guardian and master of the East, for thy coat is white and gray, the color of the day and dawn," etc.

And to the Eagle (Plate II, Fig. 5), he said: "White Cap (Bald Eagle), thou art passing stout of heart and strong of will. Therefore make I thee the younger brother of the Wolf, the guardian and master of the Upper regions, for thou fliest through the skies without tiring, and thy coat is speckled like the clouds," etc.

"Prey Mole (Plate II, Fig. 6), thou art stout of heart and strong of

will. Therefore make I thee the younger brother of the Eagle, the guardian and master of the Lower regions, for thou burrowest through the earth without tiring, and thy coat is of black, the color of the holes and caves of earth," etc.

THEIR POWER AS MEDIATORS.

Thus it may be seen that all these animals are supposed to possess not only the guardianship of the six regions, but also the mastership, not merely geographic, but of the medicine powers, etc., which are supposed to emanate from them; that they are the mediators between men and Pó-shai-ay-k'ia, and conversely, between the latter and men.

As further illustrative of this relationship it may not be amiss to add that, aside from representing the wishes of men to Pó-shai-ay-k'ia, by means of the spirits of the prayer plumes, which, it is supposed, the prey gods take into his presence, and which are, as it were, memoranda (like *quippus*) to him and other high gods of the prayers of men, they are also made to bear messages to men from him and his associated gods.

For instance, it is believed that any member of the medicine orders who neglects his religious duties as such is rendered liable to punishment (Hä'-ti-a-k'ia-na-k'ia=reprehension) by Pó-shai-ay-k'ia through some one of his warriors.

As illustrative of this, the story of an adventure of Mí-tsi, an Indian who "still lives, but limps," is told by the priests with great emphasis to any backsliding member.

MÍ-TSI.

Mí-tsi was long a faithful member of the Little Fire order (Ma-ke-tsá-na-kwe), but he grew careless, neglected his sacrifices, and resigned his rank as "Keeper of the Medicines," from mere laziness. In vain his fathers warned him. He only grew hot with anger. One day Mí-tsi went up on the mesas to cut corral posts. He sat down to eat his dinner. A great black bear walked out of the thicket near at hand and leisurely approached him. Mí-tsi dropped his dinner and climbed a neighboring little dead pine tree. The bear followed him and climbed it, too. Mí-tsi began to have sad thoughts of the words of his fathers.

"Alas," he cried, "pity me, my father from the West-land!" In vain he promised to be a good Ma-ke-tsá-na-kwe. Had not Pó-shai-ay-k'ia commanded?

So the black bear seized him by the foot and pulled until Mí-tsi screamed from pain; but, cling as he would to the tree, the bear pulled him to the ground. Then he lay down on Mí-tsi and pressed the wind out of him so that he forgot. The black bear started to go; but eyed

Mí-tsi. Mí-tsi kicked. Black bear came and pressed his wind out again. It hurt Mí-tsi, and he said to himself, "Oh dear me! what shall I do? The father thinks I am not punished enough." So he kept very still. Black bear started again, then stopped and looked at Mí-tsi, started and stopped again, growled and moved off, for Mí-tsi kept very still. Then the black bear went slowly away, looking at Mí-tsi all the while, until he passed a little knoll. Mí-tsi crawled away and hid under a log. Then, when he thought himself man enough, he started for Zuñi. He was long sick, for the black bear had eaten his foot. He "still lives and limps," but he is a good Ma-ke-tsá-na-kwe. Who shall say that Pó-shai-ay-k'ia did not command?

THEIR WORSHIP.

The prey gods, through their relationship to Pó-shai-ay-k'ia, as "Makers of the Paths of Life," are given high rank among the gods. With this belief, their fetiches are held "as in captivity" by the priests of the various medicine orders, and greatly venerated by them as mediators between themselves and the animals they represent. In this character they are exhorted with elaborate prayers, rituals, and ceremonials. Grand sacrifices of plumed and painted prayer-sticks (Téthl-na-we) are made annually by the "Prey Brother Priesthood" (Wé-ma á-pa-pa á-shi-wa-ni) of these medicine societies, and at the full moon of each month lesser sacrifices of the same kind by the male members of the "Prey gentes" (Wé-ma á-no-ti-we) of the tribe.

PREY GODS OF THE HUNT.

THEIR RELATION TO THE OTHERS.

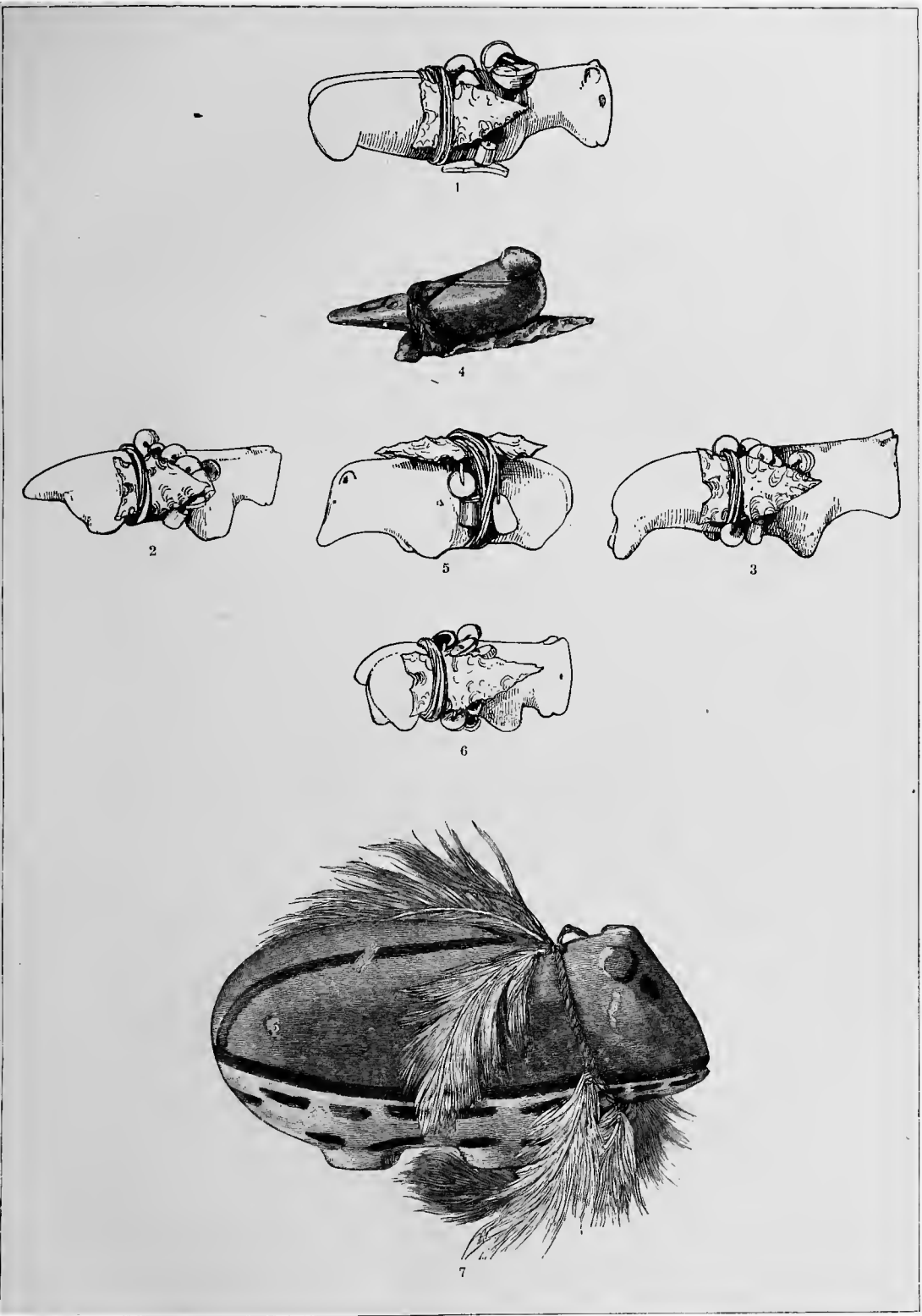
The fetich worship of the Zuñis naturally reaches its highest and most interesting development in its relationship to the chase, for the We-ma-á-lâ i are considered *par excellence* the gods of the hunt. Of this class of fetiches, the special priests are the members of the "Great Coyote People" (Sá-ni-a-k'ia-kwe, or the Hunting Order), their keepers, the chosen members of the Eagle and Coyote gentes and of the Prey Brother priesthood.

The fetiches in question (Plate III) represent, with two exceptions, the same species of prey animals as those supposed to guard the six regions. These exceptions are, the Coyote (Sús-ki, Plate III, Fig. 2), which replaces the Black Bear of the West, and the Wild Cat (Té-pi, Plate III, Fig. 3), which takes the place of the Badger of the South.

In the prayer-songs of the Sá-ni-a-kia-kwe, the names of all of these prey gods are, with two exceptions, given in the language of the Rio Grande Indians. This is probably one of the many devices for securing greater secrecy, and rendering the ceremonials of the Hunter Society mysterious to other than members. The exceptions are, the Coyote, or Hunter god of the West, known by the archaic name of Thlâ'-k'ia-tchu, instead of by its ordinary name of Sús-ki, and the Prey Mole or god of the Lower regions (Plate III, Fig. 5), which is named Mai-tu-pu, also archaic, instead of K'ia'-lu-tsi. Yet in most of the prayer and ritualistic recitals of this order all of these gods are spoken of by the names which distinguish them in the other orders of the tribe.

THEIR ORIGIN.

While all the prey gods of the hunt are supposed to have functions differing both from those of the six regions and those of the Priesthood of the Bow, spoken of further on, they are yet referred, like those of the first class, to special divisions of the world. In explanation of this, however, quite another myth is given. This myth, like the first, is derived from the epic before referred to, and occurs in the latter third of the long recital, where it pictures the tribes of the Zuñis, under the guidance of the Two Children, and the Kâ'-kâ at Kó-thlu-ël-lon-ne, now a marsh-bordered lagoon situated on the eastern shore of the Colorado Chiquito, about fifteen miles north and west from the pueblo of



PREY GOD FETICHES OF THE HUNT.

San Juan, Arizona, and nearly opposite the mouth of the Rio Concho. This lagune is probably formed in the basin or crater of some extinct geyser or volcanic spring, as the two high and wonderfully similar mountains on either side are identical in formation with those in which occur the cave-craters farther south on the same river. It has, however, been largely filled in by the *débris* brought down by the Zuñi River, which here joins the Colorado Chiquito. *Kó-thlu-ël-lon* signifies the "standing place (city) of the *Kâ'-kâ*" (from *Kâ*=a contraction of *Kâ'-kâ*, the sacred dance, and *thlu-ël-lon*=standing place).

THE DISTRIBUTION OF THE ANIMALS.

Men began their journey from the Red River, and the *Kâ'-kâ* still lived, as it does now, at *Kó-thlu-ël-lon-ne*, when the wonderful Snail People (not snails, as may be inferred, but a tribe of that name), who lived in the "Place of the Snails" (*K'ia-ma-k'ia-kwîn*), far south of where Zuñi now is, caused, by means of their magic power, all the game animals in the whole world round about to gather together in the great forked cañon-valley under their town, and there to be hidden.

The walls of this cañon were high and insurmountable, and the whole valley although large was filled full of the game animals, so that their feet rumbled and rattled together like the sound of distant thunder, and their horns crackled like the sound of a storm in a dry forest. All round about the cañon these passing wonderful Snail People made a road (line) of magic medicine and sacred meal, which road, even as a corral, no game animal, even though great Elk or strong Buck Deer, could pass.

Now, it rained many days, and thus the tracks of all these animals tending thither were washed away. Nowhere could the *Kâ'-kâ* or the children of men, although they hunted day after day over the plains and mountains, on the mesas and along the cañon-valleys, find prey or trace of prey.

Thus it happened that after many days they grew hungry, almost famished. Even the great strong *Shá'-la-k'o* and the swift *Sá-la-mo-pi-a* walked zigzag in their trails, from the weakness of hunger. At first the mighty *Kâ'-kâ* and men alike were compelled to eat the bones they had before cast away, and at last to devour the soles of their moccasins and even the deer-tail ornaments of their dresses for want of the flesh of *K'iap-in-á-há-i*, Game animals.

Still, day after day, though weak and disheartened, men and the *Kâ'-kâ* sought game in the mountains. At last a great Elk was given liberty. His sides shook with tallow, his dewlap hung like a bag, so fleshy was it, his horns spread out like branches of a dead tree, and his crackling hoofs cut the sands and even the rocks as he ran westward. He circled far off toward the Red River, passed through the Round Valley, and into the northern cañons. The *Shá'-la-k'o* was out hunting.

He espied the deep tracks of the elk and fleetly followed him. Passing swift and strong was he, though weak from hunger, and ere long he came in sight of the great Elk. The sight gladdened and strengthened him; but alas! the Elk kept his distance as he turned again toward the hiding-place of his brother animals. On and on the Sha'-la-k'o followed him, until he came to the edge of a great cañon, and peering over the brink discovered the hiding-place of all the game animals of the world.

"Aha! so here you all are," said he. "I'll hasten back to my father, Pá-u-ti-wa,* who hungers for flesh, alas! and grows weak." And like the wind the Sha'-la-k'o returned to Kó-thlu-ël-lon-ne. Entering, he informed the Ká'-ká, and word was sent out by the swift Sá-la-mo-pi-a† to all the We-ma-á-hâ-i for counsel and assistance, for the We-ma-á-hâ-i were now the Fathers of men and the Ká'-ká. The Mountain Lion, the Coyote, the Wild Cat, the Wolf, the Eagle, the Falcon, the Ground Owl, and the Mole were summoned, all hungry and lean, as were the Ká'-ká and the children of men, from want of the flesh of the game animals. Nevertheless, they were anxious for the hunt and moved themselves quickly among one another in their anxiety. Then the passing swift runners, the Sá-la-mo-pi-a, of all colors, the yellow, the blue, the red, the white, the many colored, and the black, were summoned to accompany the We-ma-á-hâ-i to the cañon-valley of the Snail People. Well they knew that passing wonderful were the Snail People, and that no easy matter would it be to overcome their medicine and their magic. But they hastened forth until they came near to the cañon. Then the Sha'-la-k'o,‡ who guided them, gave directions that they should make themselves ready for the hunt.

When all were prepared, he opened by his sacred power the magic corral on the northern side, and forth rushed a great buck Deer.

"Long Tail, the corral has been opened for thee. Forth comes thy game, seize him!" With great leaps the Mountain Lion overtook and threw the Deer to the ground, and fastened his teeth in his throat.

The corral was opened on the western side. Forth rushed a Mountain Sheep.

"Coyote, the corral has been opened for thee. Forth comes thy game, seize him!" The Coyote dashed swiftly forward. The Mountain Sheep dodged him and ran off toward the west. The Coyote crazily ran about

*The chief god of the Ká'-ká, now represented by masks, and the richest costume known to the Zuñis, which are worn during the winter ceremonials of the tribe.

†The Sá-la-mo-pi-a are monsters with round heads, long snouts, huge feathered necks, and human bodies. They are supposed to live beneath the waters, to come forth or enter snout foremost. They also play an important part in the Ká'-ká or sacred dances of winter.

‡Monster human bird forms, the warrior chiefs of Pá-u-ti-wa, the representatives of which visit Zuñi, from their supposed western homes in certain springs, each New Year. They are more than twelve feet high, and are carried swiftly about by persons concealed under their dresses.

yelping and barking after his game, but the Mountain Sheep bounded from rock to rock and was soon far away. Still the Coyote rushed crazily about, until the Mountain Lion commanded him to be quiet. But the Coyote smelled the blood of the Deer and was beside himself with hunger. Then the Mountain Lion said to him disdainfully, "Satisfy thy hunger on the blood that I have spilled, for to-day thou hast missed thy game; and thus ever will thy descendants like thee blunder in the chase. As thou this day satisfiest thy hunger, so also by the blood that the hunter spills or the flesh that he throws away shall thy descendants forever have being."

The corral was opened on the southern side. An Antelope sprang forth. With bounds less strong than those of the Mountain Lion, but nimbler, the Wild Cat seized him and threw him to the ground.

The corral was opened on the eastern side. Forth ran the Ó-ho-li (or albino antelope). The Wolf seized and threw him. The Jack Rabbit was let out. The Eagle poised himself for a moment, then swooped upon him. The Cotton Tail came forth. The Prey Mole waited in his hole and seized him; the Wood Rat, and the Falcon made him his prey; the Mouse, and the Ground Owl quickly caught him.

While the We-ma-á-há-i were thus satisfying their hunger, the game animals began to escape through the breaks in the corral. Forth through the northern door rushed the Buffalo, the great Elk, and the Deer, and toward the north the Mountain Lion, and the yellow Sá-la-mo-pi-a swiftly followed and herded them, to the world where stands the yellow mountain, below the great northern ocean.

Out through the western gap rushed the Mountain Sheep, herded and driven by the Coyote and the blue Sá-la-mo-pi-a, toward the great western ocean, where stands the ancient blue mountain.

Out through the southern gap rushed the Antelope, herded and driven by the Wild Cat and the red Sá-la-mo-pi-a, toward the great land of summer, where stands the ancient red mountain.

Out through the eastern gap rushed the Ó-ho-li, herded and driven by the Wolf and the white Sá-la-mo-pi-a, toward where "they say" is the eastern ocean, the "Ocean of day", wherein stands the ancient white mountain.

Forth rushed in all directions the Jack Rabbit, the Cotton Tail, the Rats, and the Mice, and the Eagle, the Falcon, and the Ground Owl circled high above, toward the great "Sky ocean," above which stands the ancient mountain of many colors, and they drove them over all the earth, that from their homes in the air they could watch them in all places; and the Sá-la-mo-pi-a of many colors rose and assisted them.

Into the earth burrowed the Rabbits, the Rats, and the Mice, from the sight of the Eagle, the Falcon, and the Ground Owl, but the Prey Mole and the black Sá-la-mo-pi-a thither followed them toward the four caverns (wombs) of earth, beneath which stands the ancient black mountain.

Then the earth and winds were filled with rumbling from the feet of the departing animals, and the Snail People saw that their game was escaping; hence the world was filled with the wars of the Kâ'-kâ, the Snail People, and the children of men.

Thus were let loose the game animals of the world. Hence the Buffalo, the Great Elk, and the largest Deer are found mostly in the north, where they are ever pursued by the great Mountain Lion; but with them escaped other animals, and so not alone in the north are the Buffalo, the Great Elk, and the Deer found.

Among the mountains and the cañons of the west are found the Mountain Sheep, pursued by the Coyote; but with them escaped many other animals; hence not alone in the west are the Mountain Sheep found.

Toward the south escaped the Antelopes, pursued by the Wild Cat. Yet with them escaped many other animals; hence not alone in the south are the Antelopes found.

Toward the east escaped the Ó-ho-li, pursued by the Wolf; but with them escaped many other animals; hence not alone in the east are the Ó-ho-li-we found.

Forth in all directions escaped the Jack Rabbits, Cotton Tails, Rats, and Mice; hence over all the earth are they found. Above them in the skies circle the Eagle, the Falcon, and the Ground Owl; yet into the earth escaped many of them, followed by the Prey Mole; hence beneath the earth burrow many.

Thus, also, it came to be that the Yellow Mountain Lion is the master Prey Being of the north, but his younger brothers, the blue, the red, the white, the spotted, and the black Mountain Lions wander over the other regions of earth. Does not the spotted Mountain Lion (evidently the Ocelot) live among the *high* mountains of the south?

Thus, too, was it with the Coyote, who is the master of the West, but whose younger brothers wander over all the regions; and thus, too, with the Wild Cat and the Wolf.

In this tradition there is an attempt, not only to explain the special distribution throughout the six regions, of the Prey animals and their prey, but also to account for the occurrence of animals in regions other than those to which, according to this classification, they properly belong:

THEIR VARIETIES.

We find, therefore, that each one of the six species of Prey animals is again divided into six varieties, according to color, which determines the location of each variety in that one or other of the regions with which its color agrees, yet it is supposed to owe allegiance to its



THE MOUNTAIN LION FETICHES OF THE CHASE—HUNTER GOD OF THE NORTH.

representative, whatsoever this may be or wheresoever placed. For instance, the Mountain Lion is primarily god of the North, but he is supposed to have a representative (younger brother) in the West (the blue Mountain Lion), another in the South (the Red), in the East (the White), in the Upper regions (the Spotted), and in the Lower regions (the black Mountain Lion).

Hence, also, there are six varieties of the fetich representing any one of these divisions, the variety being determined by the color, as expressed either by the material of which the fetich is formed, or the pigment with which it is painted, or otherwise, as, for example, by inlaying. (Plate III, Fig. 4, and Plate VII, Fig. 2.)

THE MOUNTAIN LION—HUNTER GOD OF THE NORTH.

According to this classification, which is native, the fetiches of the Mountain Lions are represented on Plate IV. They are invariably distinguished by the tail, which is represented very long, and laid lengthwise of the back from the rump nearly or quite to the shoulders, as well as by the ears, which are quite as uniformly rounded and not prominent.

The fetich of the yellow Mountain Lion (*Hâ'k-ti tä'sh-a-na thlúp-tsi-na*), or God of the North (Plate IV, Fig. 1), is of yellow limestone.* It has been smoothly carved, and is evidently of great antiquity, as shown by its polish and patina, the latter partly of blood. The anus and eyes are quite marked holes made by drilling. An arrow-point of flint is bound to the back with cordage of cotton, which latter, however, from its newness, seems to have been recently added.

The fetich of the blue Mountain Lion, of the West (*Hâ'k-ti tä'sh-a-na thlí-a-na*), is represented in Plate IV, Fig. 2. The original is composed of finely veined azurite or carbonate of copper, which, although specked with harder serpentinous nodules, is almost entirely blue. It has been carefully finished, and the ears, eyes, nostrils, mouth, tail, anus, and legs are clearly cut.

The fetich of the white Mountain Lion, of the East (*Hâ'k-ti tä'sh-a-na k'ó-ha-na*), is represented by several specimens, two of which are reproduced in Plate IV, Figs. 3 and 4. The former is very small and composed of compact white limestone, the details being pronounced, and the whole specimen finished with more than usual elaboration. The latter is unusually large, of compact gypsum or alabaster, and quite carefully carved. The eyes have been inlaid with turquoises, and there is cut around its neck a groove by which the beads of shell, coral, &c., were originally fastened. A large arrow-head of chalcedony has been bound with cords of cotton flatwise along one side of the body.

The only fetich representing the red Mountain Lion, of the South (*Hâ'k-ti tä'sh-a-na á-ho-na*), in the collection was too imperfect for reproduction.

*I am indebted to Mr. S. F. Emmons, of the Geological Survey, for assisting me to determine approximately the mineralogical character of these specimens.

The fetich of the spotted or many-colored Mountain Lion (Hâ/k-ti tã'sh-a-na sú-pa-no-pa or í-to-pa-nah-na-na), of the Upper regions, is also represented by two specimens (Plate IV, Figs. 5 and 6), both of fibrous aragonite in alternating thin and thick laminæ, or bands of grayish yellow, white, and blue. Fig. 5 is by far the more elaborate of the two, and is, indeed, the most perfect fetich in the collection. The legs, ears, eyes, nostrils, mouth, tail, anus, and genital organs (of the male) are carefully carved, the eyes being further elaborated by mosaics of minute turquoises. To the right side of the body, "over the heart," is bound with blood-blackened cotton cords a delicate flint arrow-point, together with white shell and coral beads, and, at the breast, a small triangular figure of an arrow in haliotus, or abalone.

The fetich of the black Mountain Lion (Hâ/k-ti tã'sh-a-na shí-k'ia-na) (Pl. IV, Fig. 7) is of gypsum, or white limestone, but has been painted black by pigment, traces of which are still lodged on portions of its surface.

THE COYOTE—HUNTER GOD OF THE WEST.

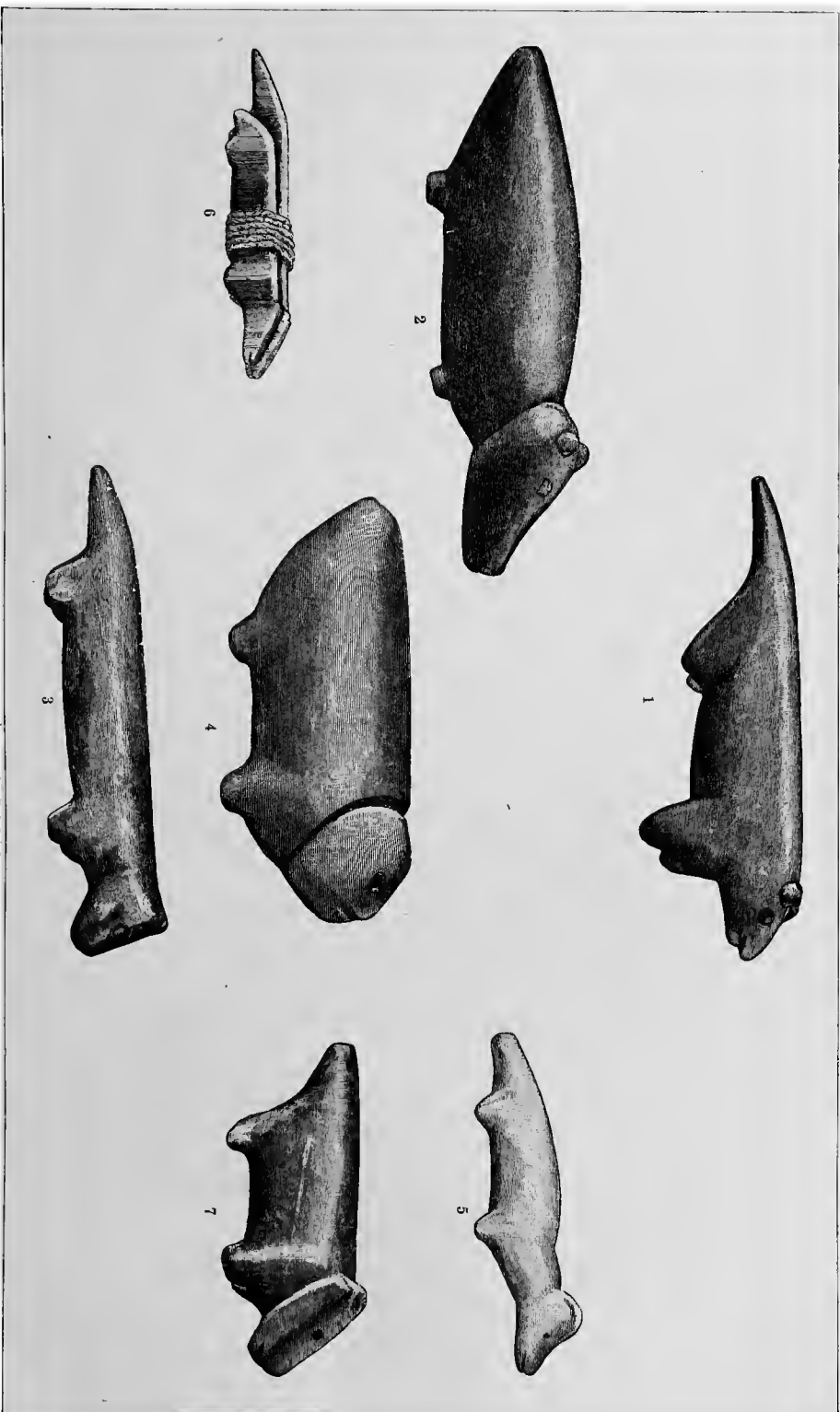
The fetiches of the Coyote, or God of the West, and his younger brothers, represented on Plate V, are called Téthl-po-k'ia, an archaic form of the modern word Sús-k'í wé-ma-we (Coyote fetiches), from *téthl-nan*, = a sacred prayer-plume, and *pó-an*, = an object or locality on or toward which anything is placed, a depository, and *k'ia* = the active participle. They are usually distinguished by horizontal or slightly drooping tails, pointed or small snouts, and erect ears. Although the Coyote of the West is regarded as the master of the Coyotes of the other five regions, yet, in the prayers, songs, and recitations of the Sá-ni-a-k'ia-kwe, and Prey Brother Priesthood, the Coyote of the North is mentioned first. I therefore preserve the same sequence observed in describing the Mountain Lion fetiches.

The fetich of the yellow Coyote (Sús-k'í thlúp-tsi-na), of the North, is represented in Plate V, Fig. 1. The original is of compact white limestone stained yellow. The attitude is that of a coyote about to pursue his prey (lá-hi-na í-mo-na), which has reference to the intemperate haste on the part of this animal, which usually, as in the foregoing tradition, results in failure.

The fetich of the blue Coyote, of the West (Sús-k'í ló-k'ia-na—signifying in reality blue gray, the color of the coyote, instead of blue = thlí-a-na), is shown in Plate V, Fig. 2. This fetich is also of compact white limestone, of a yellowish gray color, although traces of blue paint and large turkoi eyes indicate that it was intended, like Plate III, Fig. 3, to represent the God of the West.

The fetich of the red Coyote (Sús-k'í á-ho-na), of the South, is represented by Plate V, Fig. 4, which, although of white semi-translucent calcite, has been deeply stained with red paint.

Two examples of the fetich of the white Coyote (Sús-k'í k'ó-ha-na), of the East, are shown in Plate V, Figs. 4 and 5. They are both of com.



THE COYOTE FETICHES OF THE CHASE—HUNTER GOD OF THE WEST.



WILD CAT FETICHES OF THE CHASE—HUNTER GOD OF THE SOUTH.

compact white limestone. The first is evidently a natural fragment, the feet being but slightly indicated by grinding, the mouth by a deep cut straight across the snout, and the eyes by deeply drilled depressions, the deep groove around the neck being designed merely to receive the necklace. The second, however, is more elaborate, the pointed chin, horizontal tail, and pricked-up ears being distinctly carved, and yet in form the specimen resembles more a weasel than a coyote.

The fetich of the many-colored Coyote (*Sús-k'i í-to-pa-nah-na-na*), of the Upper regions, is reproduced in Plate V, Fig. 6, which represents the male and female together, the latter being indicated merely by the smaller size and the shorter tail. They are both of aragonite. This conjoined form of the male and female fetiches is rare, and is significant of other powers than those of the hunt.

The black Coyote (*Sús-k'i shí-k'ia-na*), of the Lower regions, is represented by Plate V, Fig. 7, the original of which is of compact white limestone or yellowish-gray marble, and shows traces of black paint or staining.

THE WILD-CAT—HUNTER GOD OF THE SOUTH.

The fetiches of the Wild Cat, the principal of which is God of the South, are represented on Plate VI. They are characterized by short horizontal tails and in most cases by vertical faces and short ears, less erect than in the fetiches of the Coyote.

Plate VI, Fig. 1, represents the fetich of the yellow Wild Cat (*Té-pi thlúp-tsi-na*) of the North. Although of yellow limestone, it is stained nearly black with blood. A long, clearly-chipped arrow-point of chalcidony is bound with blood-stained cotton cordage along the right side of the figure, and a necklace of white shell beads (*Kó-ha-kwa*), with one of black stone (*Kewí-na-kwa*) among them, encircles the neck.

Plate VI, Fig. 2, represents the fetich of the blue Wild Cat (*Té-pi thlí-a-na*), of the West. It is formed from basaltic clay of a grayish-blue color, and is furnished with an arrow-point of jasper (*jasp vernis*), upon which is laid a small fragment of turkoi, both secured to the back of the specimen with sinew taken from the animal represented. Plate VI, Fig. 3, likewise represents the fetich of the Wild Cat of the West. It is a fragment from a thin vein of malachite and azurite, or green and blue carbonate of copper, and has been but little changed from its original condition.

Plate VI, Fig. 4, represents the red Wild Cat (*Té-pi á-ho-na*), of the South. Although formed from gypsum or yellow limestone, its color has been changed by the application of paint. It is supplied with the usual necklace and arrow-point of the perfect fetich, secured by bands of sinew and cotton.

Both Figs. 5 and 6 of Plate VI represent the fetich of the white Wild Cat (*Té pi k'ó-ha-na*), of the East, and are of compact white limestone carefully fashioned and polished, the one to represent the perfect animal,

the other the fetus. This specimen, like Plate V, Fig. 6, has a significance other than that of a mere fetich of the chase, a significance connected with the Phallic worship of the Zuñis, on which subject I hope ere many years to produce interesting evidence.

Plate VI, Fig. 7, represents the fetich of the many-colored Wild Cat (Té-pi sú-pa-no-pa), of the Upper regions, which is made of basaltic clay, stained black with pitch and pigment, and furnished with a flake of flint and a small fragment of chrysocolla, both of which are attached to the back of the figure with a binding of sinew.

Plate VI, Fig. 8, represents, according to the Zuñis, a very ancient and valued fetich of the black Wild Cat (Té-pi shí-k'ia-na), of the Lower regions. It is little more than a concretion of compact basaltic rock, with slight traces of art. Its natural form, however, is suggestive of an animal. Long use has polished its originally black surface to the hue of lustrous jet.

THE WOLF—HUNTER GOD OF THE EAST.

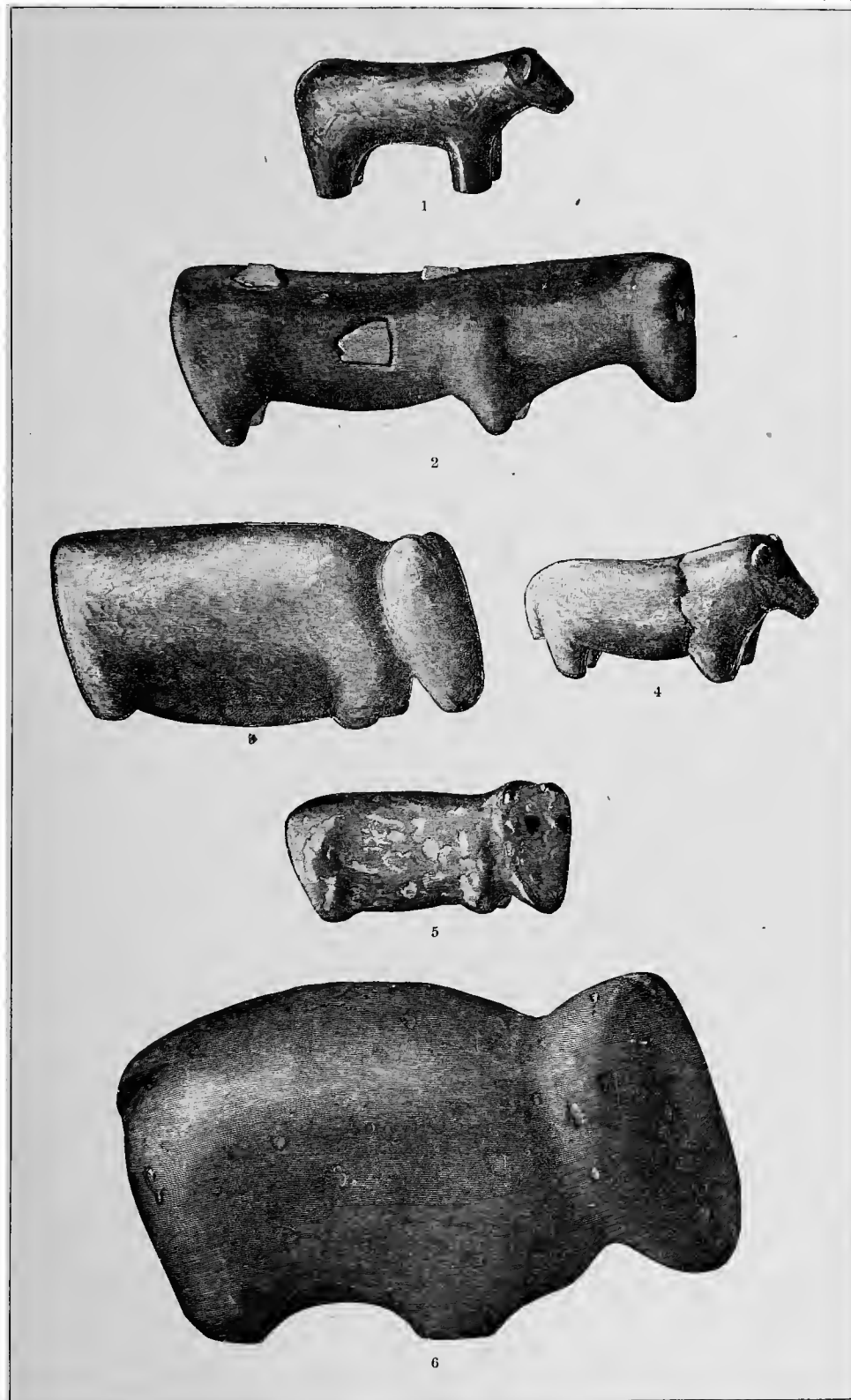
The fetiches of the Wolf, God of the East, and of his younger brothers (Íú-na-wi-ko wé-ma-we) are represented on Plate VII. They are characterized by erect attitudes, usually oblique faces, pricked-up ears, and "hanging tails."

Plate VII, Fig. 1, is a representation of the fetich of the yellow Wolf (Íú-na-wi-ko thlúp-tsi-na), of the North. It is of yellow indurated clay-stone. In this example the legs are much longer than in most specimens, for nearly all these figures are either natural fragments or concretions slightly improved on by art, or are figures which have been suggested by and derived from such fragments or concretions. Moreover, the ceremonials to be described further on require that they should be "able to stand alone"; therefore they are usually furnished with only rudimentary legs. The tail is only indicated, while in nearly all other Wolf fetiches it is clearly cut down the rump, nearly to the gambol joint.

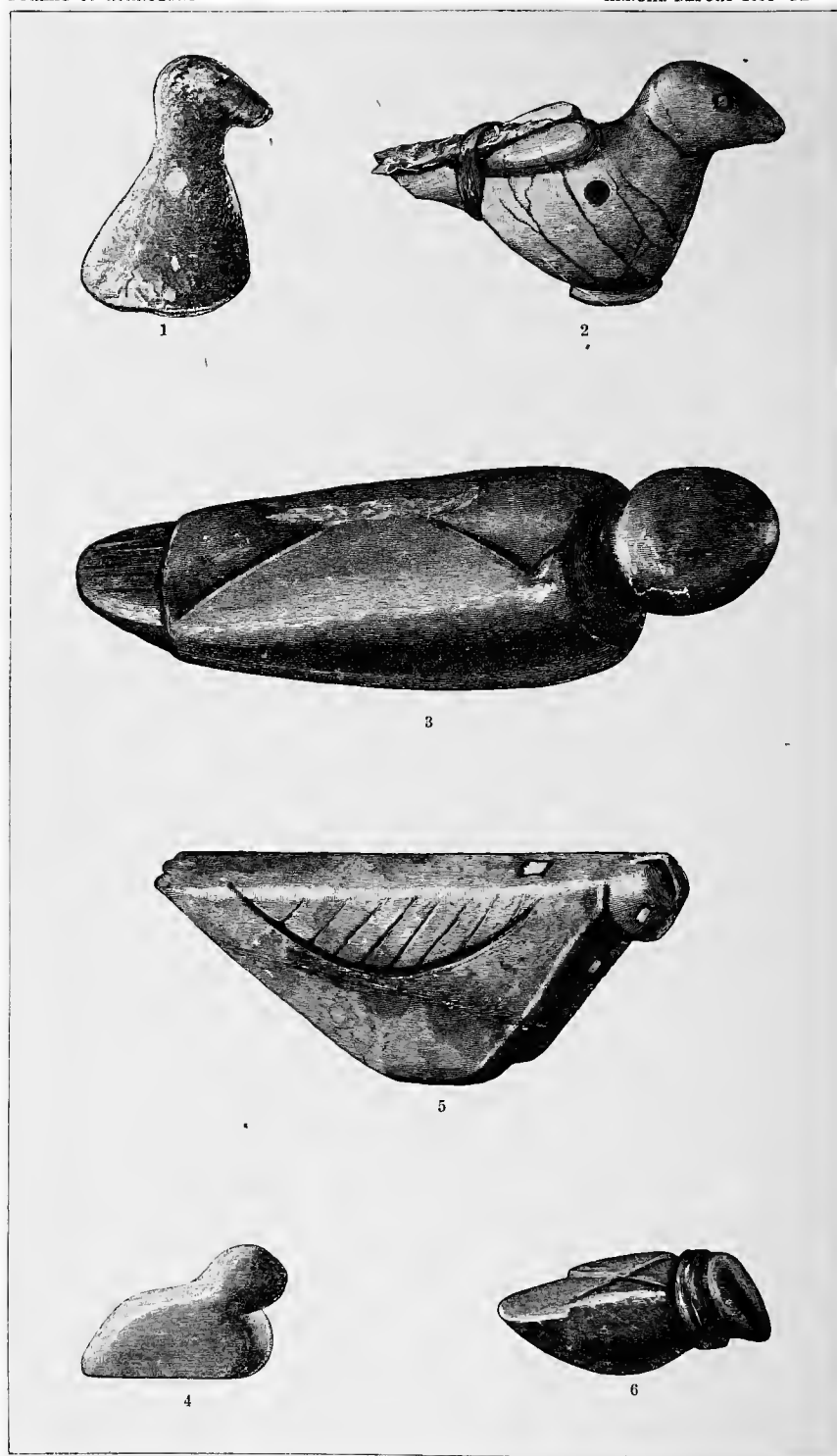
Plate VII, Fig. 2, represents a fetich of the blue Wolf (Íú-na-wi-ko thlí-a-na), of the West. It is of gray sandstone, stained first red, then blue, the latter color being further indicated by settings of green turquois on either side and along the back, as well as in the eyes.

Plate VII, Fig. 3, represents the fetich of the red Wolf (Íú-na-wi-ko á-ho-na), of the South. It is but crudely formed from a fragment of siliceous limestone, the feet, ears, and tail being represented only by mere protuberances. Although the material is naturally of a yellowish-gray color, it has been stained red.

Plate VII, Fig. 4, represents the fetich of the white Wolf (Íú-na-wi-ko k'ó-ha-na), of the East. It is of very white, compact limestone. The hanging tail, erect ears, attitude, &c., are better shown in this than perhaps in any other specimen of the class in the collection. It has, however, been broken through the body and mended with black pitch.



WOLF FETICHES OF THE CHASE—HUNTER GOD OF THE EAST.



EAGLE FETICHES OF THE CHASE—HUNTER GOD OF THE UPPER REGIONS.

Plate VII, Fig. 5, represents the fetich of the many-colored Wolf (Íú-na-wi-ko í-to-pa-nah-na-na), of the Upper regions. The original is of fine-grained sandstone of a gray color, stained in some places faintly with red and other tints. The mouth, eyes, ear tips, and tail have been touched with black to make them appear more prominent.

Plate VII, Fig. 6, represents the fetich of the black Wolf (Íú-na-wi-ko shí-k'ia-na), of the Lower regions. Although uncommonly large and greatly resembling in form the bear, it possesses the oblique face, upright ears, hanging tail, and other accepted characteristics of the Wolf.

THE EAGLE—HUNTER GOD OF THE UPPER REGIONS.

The fetiches of the Eagle, God of the Upper regions, and his younger brothers of the other regions (K'íä'-k'íä-li wé-ma-we) are represented on Plate VIII. They are characterized merely by rude bird forms, with wings either naturally or very conventionally carved (Figs. 3 and 6). Further details are rarely attempted, from the fact that all the other principal prey animals are quadrupeds, and the simple suggestion of the bird form is sufficient to identify the eagle among any of them.

Plate VIII, Fig. 1, represents the fetich of the yellow Eagle (K'íä'-k'íä-li thlúp-tsi-na), of the Northern skies. It consists merely of the head and shoulders, very rudely formed of white limestone and painted with yellow ocher. This specimen is doubtless a natural fragment very little altered by art.

Plate VIII, Fig. 2, represents the fetich of the blue Eagle (K'íä'-k'íä-li ló-k'ia-na), of the Western skies. It is quite elaborately carved, supplied with a pedestal, and pierced through the body to facilitate suspension. For during ceremonies, to be described further on, the fetiches of the Eagle are usually suspended, although sometimes, like those of the quadrupeds, they are placed on the floor, as indicated by the pedestal furnished to this specimen. Although of compact white limestone, this fetich is made to represent the blue Eagle by means of turkoi eyes and a green stain over the body. A small pink chalcidony arrow-point is attached to the back between the wings by means of a single sinew band passed around the tips of the latter and the tail and under the wings over the shoulders.

Plate VIII, Fig. 3, represents the fetich of the red Eagle (K'íä'-k'íä-li á-ho-na), of the Southern skies. Like Fig. 42, this is doubtless a nearly natural fragment of very fine-grained red sandstone, the wings being indicated by deep lines which cross over the back, and the rump grooved to receive the cord with which to secure to the back an arrow-point. The breast is perforated.

Plate VIII, Fig. 4, is a nearly natural fragment of compact white limestone, representing the white Eagle (K'íä'-k'íä-li k'ó-ha-na), of the Eastern skies. No artificial details, save the eyes, which are faintly indicated, have been attempted on this specimen.

Plate VIII, Fig. 5, represents, in compact yellow limestone, the speckled

Eagle (K'ä'-k'ä-li sú-tchu-tchon-ne) of the Upper regions, the drab color of the body being varied by fragments of pure turkois inserted into the eyes, breast, and back. A notch in the top and front of the head probably indicates that the specimen was once supplied with a beak, either of turkois or of white shell. It is perforated lengthwise through the breast.

Plate VIII, Fig. 6, is a representation of a thoroughly typical conventional fetich of the black Eagle (K'ä'-k'ä-li kwín-ne) of the Lower regions. It is of calcite, stained lustrous black. A cotton cord around the neck supplies the place of the original "necklace."

THE MOLE—HUNTER GOD OF THE LOWER REGIONS.

The fetiches of the Mole, or God of the Lower regions (K'ä'-lu-tsi wé-ma-we, in the sacred orders; Mai-tu-pu wé-ma-we, in the order of the Hunt), are represented in the collection by only two specimens, Plate II, Fig. 6, and Plate IX, Fig. 1. The figure of a third specimen, taken from one of my sketches of the original in Zuñi, is given on Plate III, Fig. 5.

These fetiches being unpopular, because considered less powerful than those of the larger gods of prey, are very rare, and are either rude concretions with no definite form (Plate II, Fig. 6), or almost equally rude examples of art, as in Plate IX, Fig. 1, which represents the fetich of the white Mole (Mai-tu-pu kó-ha-na) of the Eastern Lower regions. It consists merely of a natural slab of fine white limestone.

Nevertheless, value is sometimes attached to the Mole, from the fact that it is able by burrowing to lay traps for the largest game of earth, which it is supposed to do consciously. For this reason it is sometimes represented with surprising fidelity, as in Plate III, Fig. 5.

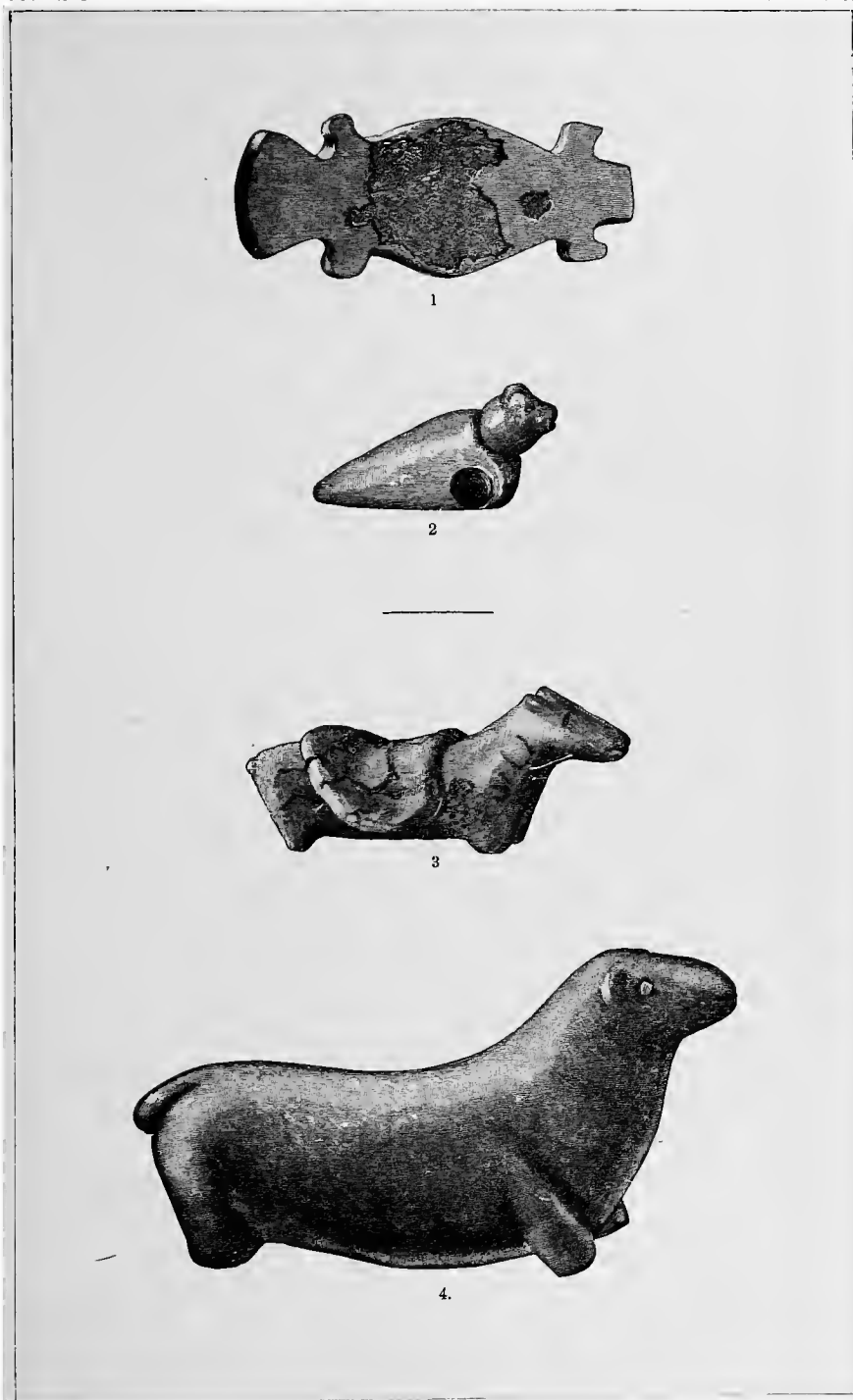
THE GROUND OWL AND THE FALCON.

The fetiches of the Ground Owl (the Prairie Dog variety—Thlá-po-po-ke'-a' wé-ma-we) of all regions, are still more rarely represented and even less prized than those of the Mole. The only example in the collection is reproduced in Plate IX, Fig. 2. The original is quite carefully formed of soft white limestone, and is perforated to facilitate suspension.

The Falcon fetiches (Pí-pi wé-ma-we) are included in the Eagle species, as they are called the younger brothers of the Eagle, and supply the place of the red Eagle which variety is met with very rarely.

THEIR RELATIVE VALUES.

The relative value of these varieties of fetiches depends largely upon the rank of the Animal god they represent. For instance, the Mountain Lion is not only master of the North, which takes precedence over



THE MOLE AND THE GROUND-OWL FETICHES—HUNTER GODS OF THE LOWER REGIONS
AND ALL REGIONS.

THE NAVAJO FETICHES—PHALLIC GODS OF THE FLOCKS.

all the other "ancient sacred spaces" (Té-thlä-shi-na-we) or regions, but is also the master of all the other Prey gods, if not of all other terrestrial animals. Notwithstanding the fact that the Coyote, in the Order of the Hunt (the Coyote society or the Sá-ni-a-k'ia-kwe), is given for traditional reasons higher *sacred* rank than the Mountain Lion, he is, as a Prey Being, one degree lower, being god of the West, which follows the North in order of importance. Hence we find the Mountain Lion and Coyote fetiches far more prized than any of the others, and correspondingly more numerous. The Coyote in rank is younger brother of the Mountain Lion, just as the Wild Cat is younger brother of the Coyote, the Wolf of the Wild Cat, and so on to the Mole, and less important Ground Owl. In relationship by blood, however, the yellow Mountain Lion is accounted older brother of the blue, red, white, spotted, and black Mountain Lions; the blue Coyote, older brother of the red, white, yellow, mottled or spotted, and black Coyotes. So the Wild Cat of the South is regarded as the older brother of the Wild Cats of all the other five regions. And thus it is respectively with the Wolf, the Eagle, and the Mole. We find, therefore, that in the North all the gods of Prey are represented, as well as the Mountain Lion, only they are yellow. In the West all are represented, as well as the Coyote, only they are blue; and thus throughout the remaining four regions.

The Mountain Lion is further believed to be the special hunter of the Elk, Deer, and Bison (no longer an inhabitant of New Mexico). His fetich is, therefore, preferred by the hunter of these animals. So, also, is the fetich of the Coyote preferred by the hunter of the Mountain Sheep; that of the Wild Cat, by the hunter of the Antelope; that of the Wolf, by the hunter of the rare and highly-valued Ó-ho-li; those of the Eagle and Falcon, by the hunter of Rabbits; and that of the Mole, by the hunter of other small game.

The exception to this rule is individual, and founded upon the belief that any one of the gods of Prey hunts to some extent the special game of all the other gods of Prey. Hence, any person who may discover either a concretion or natural object or an ancient fetich calling to mind or representing any one of the Prey gods will regard it as his special fetich, and almost invariably prefer it, since he believes it to have been "meted to" him (ań-ik-tchi-a-k'ia) by the gods.

THEIR CUSTODIAN.

Although these fetiches are thus often individual property, members of the Sá-ni-a-k'ia-kwe, and of the Eagle and Coyote gentes, as well as priests included in the Prey God Brotherhood, are required to deposit their fetiches, when not in use, with the "Keeper of the Medicine of the Deer" (Nál-e-ton í-lo-na), who is usually, if not always, the head member of the Eagle gens.

It rests with these memberships and these alone to perfect the fetiches when found, and to carry on at stated intervals the ceremonials and worship connected with them.

When not in use, either for such ceremonials or for the hunt, these tribal fetiches are kept in a very ancient vessel of wicker-work, in the House of the Deer Medicine (Náí-e-ton ín-kwín), which is usually the dwelling place of the keeper.

THE RITES OF THEIR WORSHIP.

THE DAY OF THE COUNCIL OF THE FETICHES.

The principal ceremonial connected with the worship of the Prey Beings takes place either a little before or after the winter solstice or national New Year.

This is due to the fact that many of the members of the above-mentioned associations also belong to other societies, and are required on the exact night of the New Year to perform other religious duties than those connected with the fetich worship. Hence, the fetiches or gods of prey have their special New Year's day, called Wé-ma-a-wa ú-pu-k'ia té-wa-ne ("The day of the council of the fetiches").

On this occasion is held the grand council of the fetiches. They are all taken from their place of deposit and arranged, according to species and color, in front of a symbolic slat altar on the floor of the council chamber in a way I have attempted to indicate, as far as possible, by the arrangement of the figures on the plates, the quadrupeds being placed upright, while the Eagles and other winged fetiches are suspended from the rafters by means of cotton cords. Busily engaged in observing other ceremonials and debarred from actual entrance, until my recent initiation into the Priesthood of the Bow, I have unfortunately never witnessed any part of this ceremonial save by stealth, and cannot describe it as a whole. I reserve the right, therefore, to correct any details of the following at some future day.

The ceremonials last throughout the latter two-thirds of a night. Each member on entering approaches the altar, and with prayer-meal in hand addresses a long prayer to the assembly of fetiches, at the close of which he scatters the prayer-meal over them, breathes on and from his hand, and takes his place in the council. An opening prayer-chant, lasting from one to three hours, is then sung at intervals, in which various members dance to the sound of the constant rattles, imitating at the close of each stanza the cries of the beasts represented by the fetiches.

At the conclusion of the song, the "Keeper of the Deer Medicine," who is master priest of the occasion, leads off in the recitation of a long metrical ritual, in which he is followed by the two warrior priests with shorter recitations, and by a prayer from another priest (of uncertain

rank). During these recitations, responses like those of the litany in the Church of England may be heard from the whole assembly, and at their close, at or after sunrise, all members flock around the altar and repeat, prayer-meal in hand, a concluding invocation. This is followed by a liberal feast, principally of game, which is brought in and served by the women, with additional recitations and ceremonials. At this feast, portions of each kind of food are taken out by every member for the Prey gods, which portions are sacrificed by the priests, together with the prayer plume-sticks, several of which are supplied by each member.

CEREMONIALS OF THE HUNT.

Similar midnight ceremonials, but briefer, are observed on the occasion of the great midwinter tribal hunts, the times for which are fixed by the Keeper of the Deer Medicine, the master and warrior priests of the Sá-ni-a-k'ia-kwe; and the religious observances accompanying and following which would form one of the most interesting chapters connected with the fetich worship of the Zuñis.

These ceremonials and tribal hunts are more and more rarely observed, on account of the scarcity of game and of the death a few years since of the warrior priest above mentioned, without whose assistance they cannot be performed. This position has been recently refilled, and I hope during the coming winter to be enabled, not only to witness one of these observances, but also to join in it; a privilege which will be granted to me on account of my membership in the order of the Priesthood of the Bow.

Any hunter, provided he be one privileged to participate in the above-described ceremonials—namely, a Prey brother—supplies himself, when preparing for the chase, not only with his weapons, &c., but also with a favorite or appropriate prey fetich. In order to procure the latter he proceeds, sooner or later before starting, to the House of the Deer Medicine (Nál-e-ton í'n-kwín), where the vessel containing the fetiches is brought forth by the Keeper or some substitute, and placed before him. Facing in the direction of the region to which belongs the particular fetich which he designs to use, he sprinkles into and over the vessel sacred prayer or medicine meal. Then holding a small quantity of the meal in his left hand, over the region of his heart, he removes his head-band and utters the following prayer:

Ma: Lú-k'ia yät-ton-né, hom tä-tchú, hom tsi-tá, tom lithl há té-
 Why! This day, my father, my mother, (to) thee here I un-
 kwín-té té-ä-tip, o-ná ël-le-té-k'ia. Hothl yam á-tä-tchú Ká-ká A'-shi-
 expectedly have trail overtaken. Soever for my Fathers sacred dance priest-
 (by) road
 wa-ní, wé-ma á-shi-wa-ní, K'ia-pin-a-há-í awën há lithl yam
 (gods), Prey priest-(gods), the animal gods theirs I here my
 beings for them
 te-li-ki-ná yel-le-te-u-k'o-ná te-li-ki-ná i-thle-a-nán tom lithl há o-ná
 sacred things made ready (which) sacred things with (me) bringing unto here I road
 (plumes, etc., literally relatives of the species.) thee by trail

ël-le-te-k'ia; tom lithl hâ hâl-lo-wa-ti-nân thle-a-ú tom an té-ap-k'o-nan
overtaken (have); unto here I good fortune (ad)ress thy own wherewith (thou
thee hast being)

ä'n-ti-shem-án a-k'ia yam á-wi-te-lin tsi-tá, hâ lithl té-u-su a-k'ia
wishing for hence, to my all earth mother I here (with prayer) hence,
(-from), prayer

ó-ne yäthl kwai-k'ia-ná.
trail over go out ehall.

Lé-we ú-lokh nan thla-ná tom te-ap-k'o-nán sho-hi-tá tom pi-nan
Thne much (of the) world great thy wherewith (thou hast being) (the) deer thy wind
breath (of life)

a-k'ia a-u-la-shó. Awen shi-nán, awen k'iah-kwin hothl án-ti-she-mán
by encircle about Their flesh their Life fluid soever wanting
hence wander around. (blood)

a-k'ia le-hok té-u-su a-k'ia hâ ó-ne yäthl kwai k'ia-ná.
hence yonder prayer hence with I trail over go out (shall).
(from me)

Kwa-i-no-ti-nam hothl yam té-ap-k'o-nán a-k'ia hom tâ ke-tsä-ti
Without fail (unfailingly) where- thy wherewith (thou hence (by) to me thou happy
soever for me hast being)

k'ia-ná. Hom tâ té-k'o-ha-ná an-ik tchi-a-tú.
(make, do). Unto me thou (the) light meet with (do).

FREE TRANSLATION.

Why (of course)—

This day, my father (or, my mother), here I, (as if) unexpectedly, meet thee with whatsoever I have made ready of the sacred things of my fathers, the priest gods of the sacred dances, the priest gods of the Prey (beings). These sacred things bringing I have here overtaken thee, and with their good fortune I here address thee. Wishing for that whereby thou hast being, I shall go forth from here prayerfully upon the trails of my earth-mother.

Throughout the whole of this great country, they whereby thou hast being, the deer, by the command of thy wind of life (breath), wander about. It is wishing for their flesh and blood that I shall go forth yonder prayerfully out over the trails.

Let it be without fail that thou shall make me happy with that whereby thou hast being. Grant unto me the light of thy favor.

Then scattering forth the prayer-meal in the direction he proposes to take on the hunt, he chooses from the vessel the fetich, and pressing it to or toward his lips breaths from it and exclaims:

Ha! é-lah-kwá, hom tä-tchú (hom tsi-tá), lú-k'ia yät-ton-né o-né
Ah! Thanks, my father, (my mother), this day traile
yäthl eh-kwé ta-pan hâ té-u-su a-k'ia, o-né yäthl kwai-k'ia-ná.
over ahead taking I prayer with traile over go out shall.

FREE TRANSLATION.

Ah! Thanks, my father (or, my mother), this day I shall follow (thee) forth over the trails. Prayerfully over the trails I shall go out.

Should a party be going to the hunt together, all repair to the House of the Deer Medicine, repeating, one by one, the above prayers and ceremonial as the fetiches are drawn.

The fetich is then placed in a little crescent-shaped bag of buckskin

which the hunter wears suspended over the left breast (or heart) by a buckskin thong, which is tied above the right shoulder. With it he returns home, where he hangs it up in his room and awaits a favorable rain or snow storm, meanwhile, if but a few days elapse, retaining the fetich in his own house. If a hunter be not a member of the orders above mentioned, while he must ask a member to secure a fetich for him, in the manner described, still he is quite as privileged to use it as is the member himself, although his chances for success are not supposed to be so good as those of the proper owner.

During his journey out the hunter picks from the heart of the *yucca*, or Spanish bayonet, a few thin leaves, and, on reaching the point where an animal which he wishes to capture has rested, or whence it has newly taken flight, he deposits, together with sacrifices hereinafter to be mentioned, a spider knot (hó-tsa-na mu kwí-ton-ne), made of four strands of these *yucca* leaves. This knot must be tied like the ordinary cat-knot, but invariably from right to left, so that the ends of the four strands shall spread out from the center as the legs of a spider from its body. The knot is further characterized by being tied quite awkwardly, as if by a mere child. It is deposited on the spot over which the heart of the animal is supposed to have rested or passed. Then a forked twig of cedar is cut and stuck very obliquely into the ground, so that the prongs stand in a direction opposite to that of the course taken by the animal, and immediately in front, as it were, of the fore part of its heart, which is represented as entangled in the knot.

This process, in conjunction with the roar of the animal, which the fetich represents, and which is imitated by the hunter on the conclusion of these various ceremonials, is supposed to limit the power of flight of the animal sought, to confine him within a narrow circle, and, together with an additional ceremonial which is invariably performed, even without the other, is supposed to render it a sure prey. This is performed only after the track has been followed until either the animal is in sight, or a place is discovered where it has lain down. Then, in exactly the spot over which the heart of the animal is supposed to have rested, he deposits a sacrifice of corn pollen (tâ-ón-ia), sacred black war paint (tsú-ha-pa)—a kind of plumbago, containing shining particles, and procured by barter from the Ha-va-su-pai (Coçoninos), and from sacred mines toward the west—and prayer or sacred meal, made from white seed-corn (emblematic of terrestrial life or of the foods of mankind), fragments of shell, sand from the ocean, and sometimes turquois or green-stone, ground very fine, and invariably carried in pouches by all members of the sacred societies of Zuñi. To this mixture sacred shell beads or coral are sometimes added. Then, taking out the fetich, he breathes on it and from it, and exclaims "Si!", which signifies "the time has come," or that everything is in readiness. The exact meaning may, perhaps, be made clearer by an example. When all preparations have been made complete for a ceremonial, the word "Si!", uttered by

the master priest of the occasion, is a signal for the commencement of the ceremonials. It is therefore substituted for "Ma!", used in the foregoing prayer, whenever any preparations, like sacrifices and ceremonials, precede the prayer.

With this introduction he utters the accompanying prayer:

Lú-k'ia yät ton-né, hom tä-tchú k'ia-pin hâ-í, to-pin-té yät-ton-né, to-
 This day my father game being, one day
 raw
 pin-té teh-thli-na-né, tom an o-né yäthl u-lap-nap-té. Hothl yam á-wi-
 one night thy own trail over round about (even) However to me earth
 though. your
 te-lin tsi-tau-án to-pin-té i-te-tchu-ná hom tâ an-k'o-ha-ti-ná. Tom an
 mother (with) one step to me thou shalt grant (favor). Thy own
 k'iah-kwín an-ti-shi-ma-ná, tom an shi-i-nán án-ti-shi-mán a-k'ia tom
 blood wanting, thy own flesh wanting, hence to thee,
 life-fluid
 lithl hâ hál-lo-wa-ti-nán á-thle-a-ú thlá á-thle-a-ú. Lé-we tá-kuthl po-ti'
 here I good fortunes (ad)dress, treasure (ad)dress. Thus much woods round filled
 all the about
 hom an tom yät-ti-na tsú-ma-k'ie-ná. Hom á-tä-tchú, hom ton án-k'o-
 to me mine you grasping strong shall. My all-fathers, to me you favor
 ha-ti-na-wá. Hom ton té-k'o-ha-na án-ik-tchi-a-nap-tú.
 do (all). To me you light (favor) meet with do.

FREE TRANSLATION.

Si! This day, my father, thou game animal, even though thy trail one day and one night hast (been made) round about; however, grant unto me one step of my earth-mother. Wanting thy life-blood, wanting thy flesh, hence I here address to thee good fortune, address to thee treasure.

All ye woods that fill (the country) round about me, (do) grasp for me strongly. [This expression beseeches that the logs, sticks, branches, brambles, and vines shall impede the progress of the chased animal.] My fathers, favor me. Grant unto me the light of your favor, do.

The hunter then takes out his fetich, places its nostrils near his lips, breaths deeply from them, as though to inhale the supposed magic breath of the God of Prey, and puffs long and quite loudly in the general direction whither the tracks tend. He then utters three or four times a long low cry of, "Hu-u-u!" It is supposed that the breath of the god, breathed in temporarily by the hunter, and breathed outward toward the heart of the pursued animal, will overcome the latter and stiffen his limbs, so that he will fall an easy prey; and that the low roar, as of the beast of prey, will enter his consciousness and frighten him so as to conceal from him the knowledge of any approach.

The hunter then rises, replaces his fetich, and pursues the trail with all possible ardor, until he either strikes the animal down by means of his weapons, or so worries it by long-continued chase that it becomes an easy capture. Before the "breath of life" has left the fallen deer (if it be such), he places its fore feet back of its horns and, grasping its

mouth, holds it firmly closed, while he applies his lips to its nostrils and breathes as much wind into them as possible, again inhaling from the lungs of the dying animal into his own. Then letting go he exclaims:

Ha! é-lah-kwá! hom tä-tchú, hom tcha-lé. Hom tâ tâ-sho-na-né,
 Ah! Thanks! my father, my child. To me thou seeds (of earth)
 k'ia-she-ma án-ik-tchi-a-nap-tú. Hom tâ té-k'o-ha-na, o-né, yáthl k'ok-
 water (want) meet (grant) do. To me thou light trail over good
 (favor)
 shi, án-ik-tchi-a-nap-tú.
 meet (grant) do.

FREE TRANSLATION.

Ah! Thanks, my father, my child. Grant unto me the seeds of earth ("daily bread") and the gift of water. Grant unto me the light of thy favor, do.

As soon as the animal is dead he lays open its viscera, cuts through the diaphragm, and makes an incision in the aorta, or in the sac which incloses the heart. He then takes out the prey fetich, breathes on it, and addresses it thus:

Si! Hom tä-tchú, lú-k'ia yät-ton-né, lithl k'ia-pin-hâ-i an k'iah-kwîn
 Si! My father this day here Game animal its life-fluid (blood)
 a-k'ia tâs í-k'iah-kwi-ná, tâs í'-ke-i-nan a-k'ia í'-te-li-a-u-ná:
 hence thou shalt dampen thyself, thou shalt (thy) hence add unto:
 with, heart with

FREE TRANSLATION.

Si! My father, this day of the blood of a game being thou shalt drink (water thyself). With it thou shalt enlarge (add unto) thy heart:

He then dips the fetich into the blood which the sac still contains, continuing meanwhile the prayer, as follows:

—— les-tik-lé-a ak'n' há-i', k'ia-pin-hâ-i an k'iah-kwîn, an shí-i-nan
 likewise cooked being, game being its fluid (of life) its flesh
 done raw
 a-k'ia há's lithl yam í-ke-i-nan í-te-li-a-u-ná.
 hence I shall here my heart add unto (enlarge).
 with

FREE TRANSLATION.

—— likewise, I, a "done" being, with the blood, the flesh of a raw being (game animal), shall enlarge (add unto) my heart.

Which finished, he scoops up, with his hand, some of the blood and sips it; then, tearing forth the liver, ravenously devours a part of it, and exclaims, "É-lah-kwá!" (Thanks).

While skinning and quartering the game he takes care to cut out the *tragus* or little inner lobe of its ear, the clot of blood within the heart (á'-te mul ú-li-k'o-na), and to preserve some of the hair. Before leaving, he forms of these and of the black paint, corn pollen, beads of turkois or turkois dust, and sacred shell or broken shell and coral beads before mentioned, a ball, and on the spot where the animal ceased to

breathe he digs a grave, as it were, and deposits therein, with prayer-meal, this strange mixture, meanwhile saying the following prayer:

Si! Lú-k'ia yät-ton-né, k'ia-pin-hâ-i, tó-pin-ta yät-ton-né tó-pin-ta
 Si! This day game being, one day, one
 raw
 teh-thli-na-né, lé-we tom o-né yäthl ú-lap-na-k'ia tap-té lú-k'ia yät-ton-né
 night, thus much thy trail over circled about though this day
 (even)
 te-kwîn-té te-ä-ti-pá, tom lithl hâ an-ah-ú'-thla-k'ia. Tom lithl hâ hâ'l-lo-
 (as if) unex- was it thou here I upward pulling To thee here, I good
 pectedly embraced.
 a-ti-nân thle-a-ú. Tom lithl hâ ó-ne-an thle-a-ú. Tom lithl hâ thlâ
 fortune address To thee here I corn pollen address. To thee here I treas-
 the yellow ure
 thle-a-ú. Yam an-i-kwan-a-k'ia hâ'l-lo-wa-ti-nan, ó-ne-an, thlâ í-thle-a-u-
 address. By thy knowledge-hence good fortune, the yellow, treas- (thyself) shall
 ure,
 ná tâ thli-môn hâ-i í-ya-k'ia-nan hom an té u-su-pé-nan a-k'ia tâ
 dress thou new being making shall be my own prayer-speech hence thou
 (thyself) with,
 yä'-shu-a i-tú loh k'ia-ná. K'ia-pin-â-hâ-i á-te-kwi a-k'ia. Kwa hom
 conversing come and go (shall). Game beings relative to with. Not mine
 raw animals in the di-
 rection of
 i'-no-ti-nam tun a-k'ia tom lithl hâ hâ'l-lo-wa-ti-nan, ó-ne-an, thlâ, á-thle-
 fail to hence, to thee here I good fortune, the yellow, treas- (have) all
 ure
 a-k'ia. Hom tâ té-k'o-ha-na an'-ik-tchi-a-nap-tú. O-né yäthl k'ok-shi
 addressed. To me thou light grant (meet) do. Trail over good
 hom tâ tchâw' il-lü'p ó-na yá-k'ia-nap-tú.
 to me thou children together with, finish, do.
 trail

FREE TRANSLATION.

Si! This day, game animal, even though, for a day and a night, thy trail above (the earth) circled about—this day it has come to pass that I have embraced thee upward (from it). To thee here I address good fortune. To thee here I address the (sacred) pollen. To thee here I address treasure. By thy (magic) knowledge dressing thyself with this good fortune, with this yellow, with this treasure, do thou, in becoming a new being, converse with (or, of) my prayer as you wander to and fro.

That I may become unfailing toward the Game animals all, I have here addressed unto thee good fortune, the yellow and treasure.

Grant unto me the light of thy favor.

Grant unto me a good (journey) over the trail of life, and, together with children, make the road of my existence, do.

During the performance of these ceremonials the fetich is usually placed in a convenient spot to dry, and at their conclusion, with a blessing, it is replaced in the pouch. The hunter either seeks further for game, or, making a pack of his game in its own skin by tying the legs together and crossing them over his forehead like a burden strap, returns home and deposits it either at the door or just within. The women then come, and, breathing from the nostrils, take the dead animal to the center of the room, where, placing its head toward the East, they lay on either side of its body next to the heart an ear of corn (signifi-

cant of renewed life), and say prayers, which, though short, are not less interesting and illustrative of the subject than those already given, but which, unfortunately, I cannot produce word for word.

The fetich is returned to the Keeper of the Deer Medicine with thanksgiving and a prayer, not unlike that uttered on taking it forth, but which also I am unable to reproduce. It contains a sentence consigning the fetich to its house with its relatives, speaking of its quenched thirst, satisfied hunger, and the prospects of future conquests, etc.

THEIR POWER.

It is believed that without recourse to these fetiches or to prayers and other inducements toward the game animals, especially the deer tribe, it would be useless to attempt the chase. Untrammelled by the Medicine of the Deer, the powers of the fetiches, or the animals of prey represented, the larger game is unconquerable; and no man, however great his endurance, is accounted able to overtake or to weary them. It thus happens that few hunters venture forth without a fetich, even though they belong to none of the memberships heretofore mentioned. Indeed, the wearing of these fetiches becomes almost as universal as is the wearing of amulets and "Medicines" among other nations and Indian tribes; since they are supposed to bring to their rightful possessors or holders, not only success in the chase and in war (in the case of the Warriors or Priests of the Bow), but also good fortune in other matters.

The successful hunter is typical of possession, since the products of his chase yield him food, apparel, ornament, and distinction. It is therefore argued with strange logic that, even though one may not be a hunter, there must exist a connection between the possessions of the hunter and the possessions of that one, and that principally through the fetiches. A man therefore counts it the greatest of good fortune when he happens to find either a natural or artificial object resembling one of the animals of prey. He presents it to a proper member of the Prey Brotherhood, together with the appropriate flint arrow-point and the desirable amount of ornaments (thlâ-â) for dressing (thlé-a-k'ia-na) and finishing (i-ya-k'ia-na), as soon as possible.

PREY GODS OF THE PRIESTHOOD OF THE BOW.

THE KNIFE-FEATHERED MONSTER, THE MOUNTAIN LION, AND THE GREAT WHITE BEAR.

The Priesthood of the Bow possesses three fetiches, two of which are of the We-ma-á-há-i, (Plate X, Fig. 2, and Plate XI, Fig. 2.) The other is sometimes classed with these, sometimes with the higher beings, and may be safely said to form a connecting link between the idolatry proper of the Zuñis and their fetichism. These three beings are, the Mountain Lion (Plate X, Fig. 2), the great White Bear (Plate XI, Fig. 2), (Áiñ-shi k'ó-ha-na—the god of the scalp-taking ceremonials), and the Knife-feathered Monster (Á-tchi-a lä-to-pa), (Plate X, Fig. 1).

This curious god is the hero of hundreds of folklore tales, and the tutelar deity of several of the societies of Zuñi. He is represented as possessing a human form, furnished with flint knife-feathered pinions, and tail. His dress consists of the conventional terraced cap (representative of his dwelling-place among the clouds), and the ornaments, badge, and garments of the Ká'-ká. His weapons are the Great Flint-Knife of War, the Bow of the Skies (the Rain-bow), and the Arrow of Lightning, and his guardians or warriors are the Great Mountain Lion of the North and that of the Upper regions.

He was doubtless the original War God of the Zuñis, although now secondary, in the order of war, to the two children of the Sun mentioned at the outset.

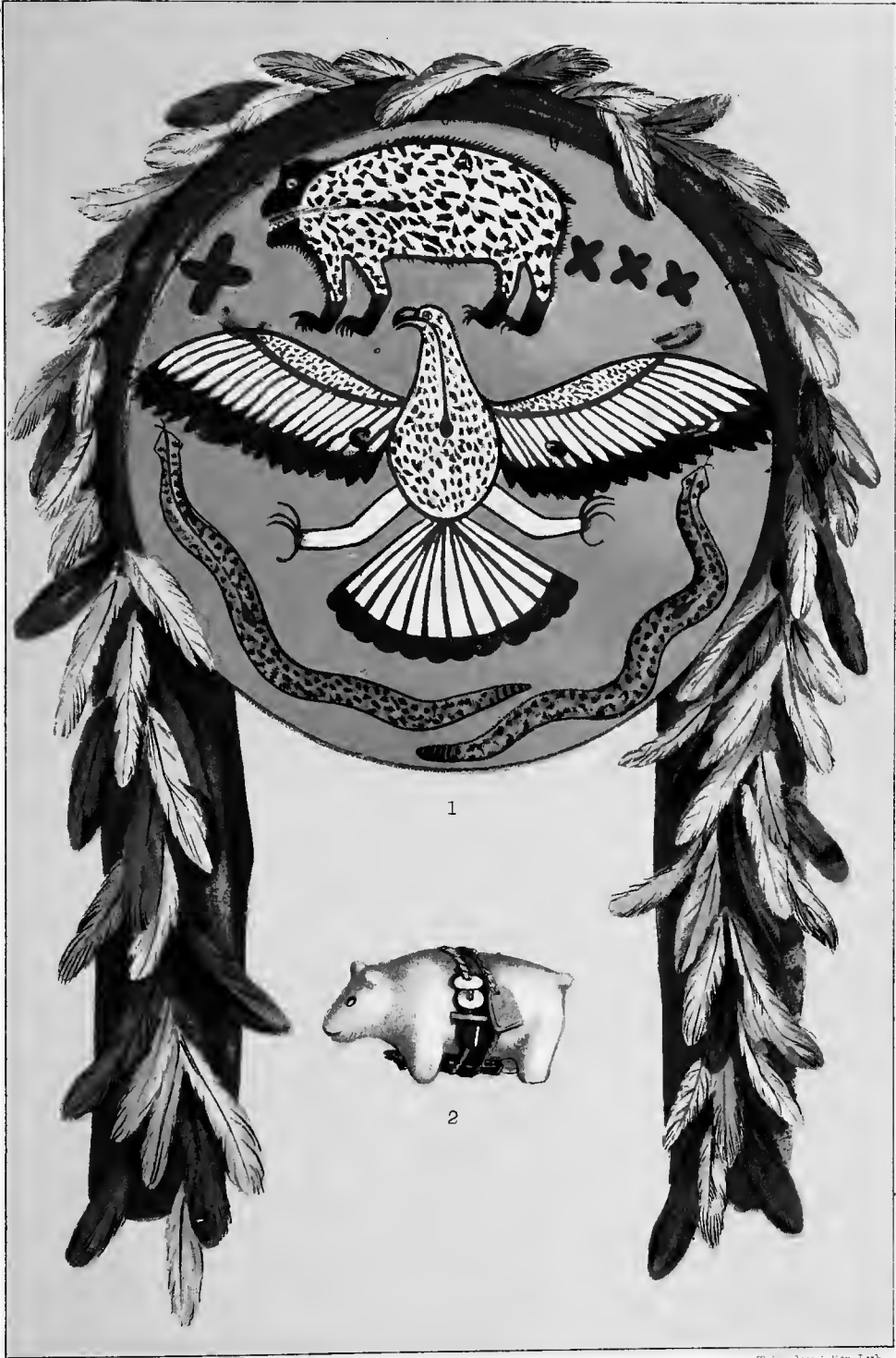
Anciently he was inimical to man, stealing and carrying away to his city in the skies the women of all nations, until subdued by other gods and men of magic powers. At present he is friendly to them, rather in the sense of an animal whose food temporarily satisfies him than in the beneficent character of most of the gods of Zuñi.

Both the Great White Bear and the Mountain Lion of the War Priesthood are, as well as the Knife-feathered Deñon, beings of the skies. For this reason the fetich of the Mountain Lion of the skies (of aragonite) is preferred by a Priest of the Bow above all other kinds or colors. Unfortunately, none of the fetiches of this priesthood are to be found in the collections of the Bureau, and but one, with its pouch, has been reproduced from the original, which is in my possession. It was not presented to me with my other paraphernalia on the night of the final ceremonials of my initiation into the Priesthood of the Bow, but some months afterward when I was about to start on a dangerous expedition. At this time I was charged with carefully preserving it during life as my special fetich, and instructed in the various usages connected with



T. Sinclair & Son, Lith.

SHIELD AND FETICH OF THE PRIESTHOOD OF THE BOW.



T. S. G. & Son, Larch

SHIELD AND FETICH OF THE PRIESTHOOD OF THE BOW

it. The other was drawn from a sketch made by myself of a fetich in Zuñi.

These fetiches—more usually of the Mountain Lion than of the others; very rarely of the Knife-feathered Demon—are constantly carried by the warriors when abroad in pouches like those of the Hunters, and in a similar manner. They are, however, not returned to the headquarters of the society when not in use, but, being regarded, with the other paraphernalia of their possessor, as parts of his Sá-wa-ni-k'ia, are always kept near him.

RESEMBLANCE TO THE PREY GODS OF THE HUNT.

The perfect fetich of this order differs but little from those of the Hunters, save that it is more elaborate and is sometimes supplied with a minute heart of turkoi bound to the side of the figure with sinew of the Mountain Lion, with which, also, the arrow-point is invariably attached, usually to the back or belly. The precious beads of shell, turkoi, coral, or black stone, varied occasionally with small univalves from the ocean, are bound over all with a cotton cord. These univalves, the oliva (tsu-i-ke-i-nan-ne=heartshell), are, above all other shells, sacred; and each is emblematic of a god of the order. The wrist badges of the members are also made of these shells, strung on a thong of buckskin taken from the enemy. The arrow-point, when placed on the back of the fetich, is emblematic of the Knife of War (Sá-wa-ni-k'ia ä'-tchi-ën-né), and is supposed, through the power of Sá-wa-ni-k'ia or the "magic medicine of war" (?) to protect the wearer from the enemy from behind or from other unexpected quarters. When placed "under the feet" or belly, it is, through the same power, considered capable of effacing the tracks of the wearer, that his trail may not be followed by the enemy.

THE RITES OF THEIR WORSHIP.

The ceremonial observed by a Priest of the Bow, when traveling alone in a country where danger is to be apprehended from the enemy, may be taken as most illustrative of the regard in which the fetiches of his order are held.

Under such circumstances the warrior takes out his fetich from the pouch, and, scattering a pinch or two of sacred flour toward each of the four quarters with his right hand, holds it in his left hand over

his breast, and kneels or squats on the ground while uttering the accompanying prayer:

Si! Lú-k'ia yät-ton-né, hom a-tä-tchú K'ia-pin-á-hâ-i lé-we í-na-kwe
 Si! This day, my Fathers, Animal Beings, (all) (by) enemies
 thus much
 pó-ti-tap-té hom ton té-bi-a-na-wé. Ethl tel-i-kwën-te thlothl tchu-a
 filled through me ye precious render Not that (in any) way soever whom (of the)
 (all do). unexpected
 í-na-kwe hom kwa'hothl a-k'ia a-tsu-ma-na-wam-i-k'ia-ná. Lú-k'ia yät-
 enemy my whatsoever with daring (existence) (pl.) shall. This day
 ton-né hom to le'-na
 to me ye thus

[At this point, while still continuing the prayer, he scratches or cuts in the earth or sands with the edge of the arrow-point, which is lashed to the back or feet of the fetich, a line about five or six inches in length].

ai'-yäl-la-na-wá. Ethl thlothl-tchu-á í-na-kwe í-pi-kwai-nam-tun a-k'ia
 shelter (pl.) shall give. Not that whomsoever (of the) enemy pass themselves through to hence
 shield
 hom ton ai'-yäl-la-na-wá. [Here he scratches a second line.] Hâk-ti-
 to me ye shelter shield (pl.)
 shall (give), Tail-long
 tä'sh-a-ná, [scratches a third line.] Ä-tchi-a-lä'-to-pá, [scratches a fourth
 (Mountain Lion), Knife-feathered,
 line] hom ton í-ke-i-nan ai'-yäl-la-na-wá.
 my ye heart shelter shield (pl.)
 shall give.

[These lines, although made immediately in front of the speaker, relate to the four points of the compass, the other two regions not being taken into account, since it is impossible for the enemy to bring harm from either above or below the plane on which the subject moves. It may be well to add, also, that four (the number of the true fingers) is the sacred numeral of the Zuñis, as with most all Indian tribes and many other lower races.]

FREE TRANSLATION.

Si! This day, my fathers, ye animal gods, although this country be filled with enemies, render me precious. That my existence may not be in any way so ever unexpectedly dared by the enemy, thus, O! shelter give ye to me (from them). (In order) that none of the enemy may pass through (this line) hence, O! shelter give ye to me (from them). Long Tail [Mountain Lion], Knife-feathered [God of the Knife Wings], O! give ye shelter of my heart from them.

On the conclusion of this prayer the fetich is breathed upon and replaced, or sometimes withheld until after the completion of the war-song and other chants in which the three gods mentioned above are, with others, named and exhorted, thereby, in the native belief, rendering protection doubly certain. I am of course thoroughly familiar with

these war chants, rituals, etc. They abound in archaic terms and are fraught with great interest, but belong more properly to another department of Zuñi worship than that of the mere fetichism; as, indeed, do most other recitations, chants, etc., of the War society, in any way connected with this worship.

Before following the trail of an enemy, on finding his camp, or on overtaking and destroying him, many ceremonials are performed, many prayers are uttered, much the same as those described relative to the chase, save that they are more elaborate and more irrelevant to the subject in hand. As with the Hunter, so with the Warrior, the fetich is fed on the life-blood of the slain.

OTHER FETICHES.

FETICHES OF NAVAJO ORIGIN.

THE PONY.

Among other specimens in the collection to which these notes relate are several pieces representing the horse and domesticated sheep, of which Plate IX, Figs. 3 and 4, are the best examples. Both are of Navajo importation, by which tribe they are much prized and used. The original of Fig. 3 represents a saddled pony, and has been carefully carved from a small block of compact white limestone veined like Italian marble. This kind of fetich, according to the Zuñis, is manufactured at will by privileged members of the Navajo nation, and carried about during hunting and war excursions in "medicine bags," to insure the strength, safety, and endurance of the animals they represent.

THE SHEEP.

Plate IX, Fig. 4, represents a superb large sheep fetich of purplish-pink fluorspar, the eyes being inlaid with small turquoises. Such are either carried about by the shepherds or kept in their huts, and, together with certain ceremonials, are supposed not only to secure fecundity of the flocks, but also to guard them against disease, the animals of prey, or death by accident.

AMULETS AND CHARMS.

In addition to the animal fetiches heretofore described, many others are found among the Zuñis as implements of their worship, and as amulets or charms for a variety of purposes. The painted and plumed prayer-sticks are of this character.

The amulets proper may be roughly divided into three classes:

1. Concretions and other strange rock formations, which, on account of their forms, are thought to have been portions of the gods, of their weapons, implements, and ornaments, their té-ap-ku-na-we (the where-withals of Being).
2. The sacred relics of the gods, which are supposed to have been given to man directly by their possessors, in the "days of the new," and include the "Gifts of the Gods" (yé-le-te-li-we).
3. The magic "medicines" which are used as protective, curative, and productive agencies, and are known as the é tá we and á-kwa-we (the "contained" and the "medicines").

One object, a mere concretion, will have something about it suggesting an organ of the human body. (See, for example, Fig. 1.) It will then be regarded as the genital organ of some ancient being, and will be highly prized, not only as a means of approaching the spirit of the god to whom it is supposed to have once belonged, but also as a valuable aid to the young man in his conquests with the women, to the young woman in her hope to bear male children.



FIG. 1.—Concretion.

Again, certain minerals (Fig. 2), or fossils, etc. (Fig. 3), will be regarded as belonging to, or parts of, the gods, yet will be used as medicines of war or the chase, or by means of which water may be produced or crops stimulated, to say nothing of their efficacy as cures, or sources of strength, etc. For instance, Fig. 2 is of aragonite, hence referred to the Upper

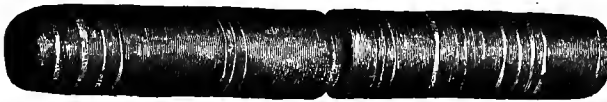


FIG. 2.—Mineral fetich.

regions, and therefore valuable to give efficacy to the paint with which plumesticks of

rain prayers are decorated; while Fig. 3, from its shape, is supposed to represent the relic of the weapon or tooth of a god, and therefore endowed with the power of Sá-wa-ni-k'ia, and hence is preserved for generations—with an interminable variety of other things—in the Order of the Warriors, as the "protective medicine of war" (Shom-i-tâ-k'ia). A little of it, rubbed on a stone and mixed with much water, is a powerful medicine for protection, with which the warrior fails not to anoint his whole body before entering battle.



FIG. 3.—Fossil fetich.

These amulets and implements of worship are well illustrated in the National Museum, and the subject merits extensive treatment. The facts connected with them will throw much light upon the mental characteristics and beliefs of the Zuñis. At some future time I hope to set this matter forth more fully.

NOTE.—It is to be regretted that the haste in which this paper was prepared by the author, before his departure for New Mexico, to resume his researches among the Zuñis, made it impossible for him to discuss further this interesting subject. The abundant material in his possession, gained from actual membership in the order or society under discussion, would have rendered this comparatively easy under other circumstances.—Ed.

A STUDY
OF
PUEBLO POTTERY

AS ILLUSTRATIVE OF
ZUÑI CULTURE-GROWTH

BY
FRANK HAMILTON CUSHING

[EXTRACT FROM THE FOURTH ANNUAL REPORT OF THE BUREAU OF ETHNOLOGY]



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A STUDY OF PUEBLO POTTERY AS ILLUSTRATIVE OF ZUÑI CULTURE-GROWTH.

BY FRANK H. CUSHING.

HABITATIONS AFFECTED BY ENVIRONMENT.

It is conceded that the peculiarities of a culture-status are due chiefly to the necessities encountered during its development. In this sense the Pueblo phase of life was, like the Egyptian, the product of a desert environment. Given that a tribe or stock of people is weak, they will be encroached upon by neighboring stronger tribes, and driven to new surroundings if not subdued. Such we may believe was the influence which led the ancestors of the Pueblo tribes to adopt an almost waterless area for their habitat.

It is apparent at least that they entered the country wherein their remains occur while comparatively a rude people, and worked out there almost wholly their incipient civilization. Of this there is important linguistic evidence.

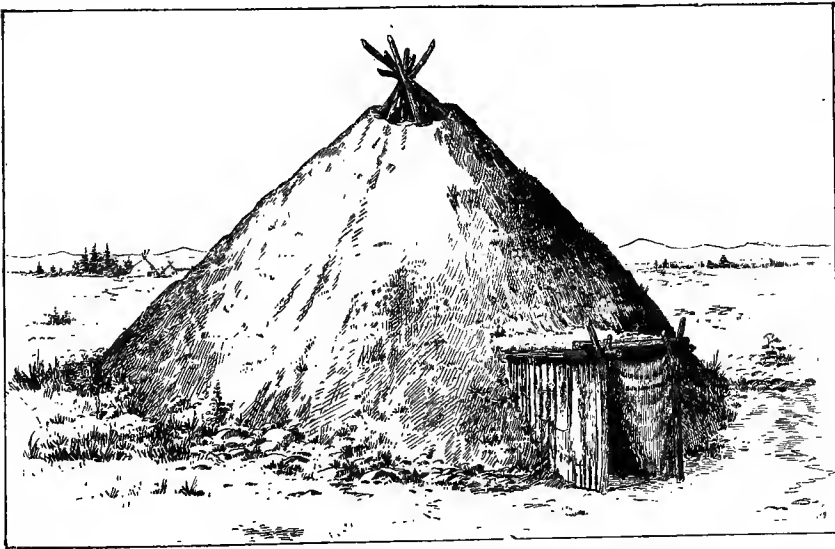


FIG. 490.—A Navajo hut.

A Navajo hogan, or hut, is a beehive-shaped or conical structure (see Fig. 490) of sticks and turf or earth, sometimes even of stones

chinked with mud. Yet its modern Zuñi name is *hám' pon ne*, from *ha we*, dried brush, sprigs or leaves; and *pó an ne*, covering, shelter or roof (*po a* to place over and *ne* the nominal suffix); which, interpreted, signifies a "brush or leaf shelter." This leads to the inference that the temporary shelter with which the Zuñis were acquainted when they formulated the name here given, presumably in their earliest condition, was in *shape* like the Navajo hogan, but in *material*, of brush or like perishable substance.

The archaic name for a building or walled inclosure is *hé sho ta*, a contraction of the now obsolete term, *hé sho ta pon ne*, from *hé sho*, gum, or resin-like; *shó tai e*, leaned or placed together convergingly; and *tá po an ne*, a roof of wood or a roof supported by wood.

The meaning of all this would be obscure did not the oldest remains of the Pueblos occur in the almost inaccessible lava-wastes bordering the southwestern deserts and intersecting them and were not the houses of these ruins built on the plan of shelters, round (see Figs. 491, 492, 493),

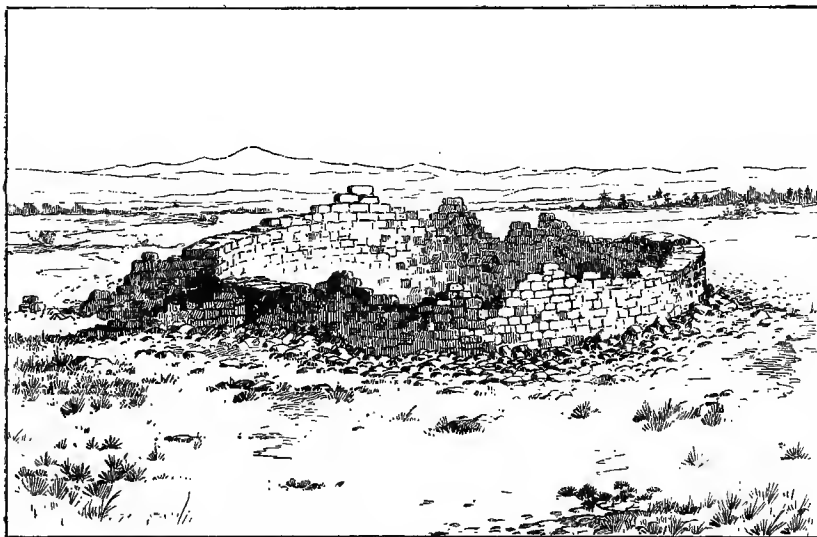


FIG. 491.—Perepective view of earliest or Round-house structure of lava.

rather than rectangular. Furthermore, not only does the lava-rock of which their walls have been rudely constructed resemble natural asphaltum (*hé sho*) and possess a cleavage exactly like that of piñon-gum and allied substances (also *hé sho*), but some forms of lava are actually known as *á he sho* or gum-rock. From these considerations inferring that the name *hé sho ta pon ne* derivatively signifies something like "a gum-rock shelter with roof supports of wood," we may also infer that the Pueblos on their coming into the desert regions dispossessed earlier inhabitants or that they chose the lava-wastes the better to secure

themselves from invasion; moreover that the oldest form of building known to them was therefore an inclosure of lava-stones, whence the application of the contraction *hé sho ta* and its restriction to mean a walled inclosure.

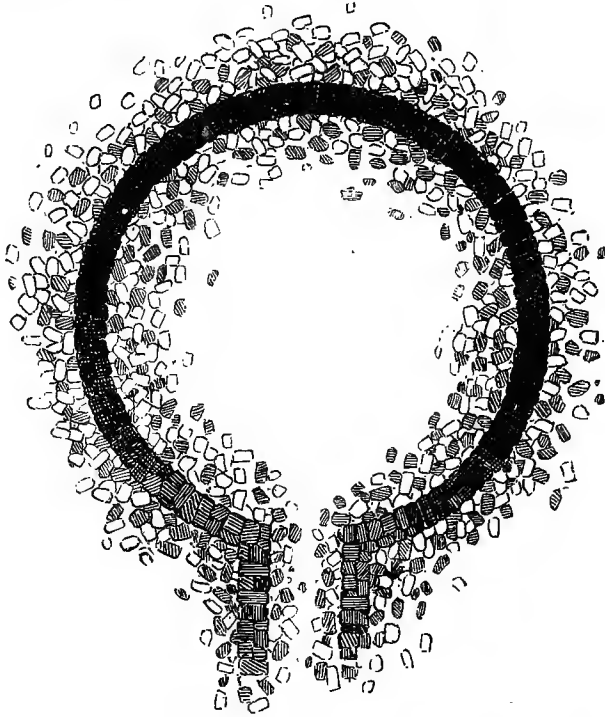


FIG. 492.—Plan of Pueblo structure of lava.

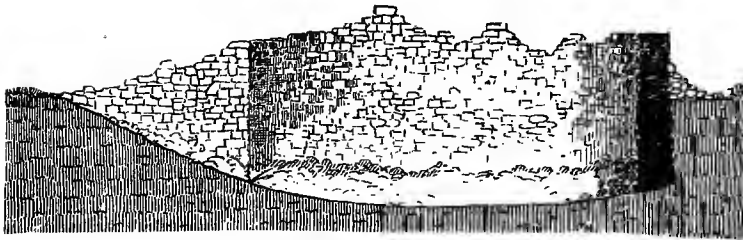


FIG. 493.—Section of Pueblo structure of lava.

RECTANGULAR FORMS DEVELOPED FROM CIRCULAR.

It may be well in this connection to cite a theory entertained by Mr. Victor Mindeleff, of the Bureau of Ethnology, whose wide experience among the southwestern ruins entitles his judgment to high consider-

ation. In his opinion the rectangular form of architecture, which succeeds the type under discussion, must have been evolved from the circular form by the bringing together, within a limited area, of many houses. This would result in causing the wall of one circular structure to encroach upon that of another, suggesting the partition instead of the double wall. This partition would naturally be built straight as a twofold measure of economy. Supposing three such houses to be contiguous to a central one, each separated from the latter by a straight wall, it may be seen that (as in the accompanying plan) the three sides

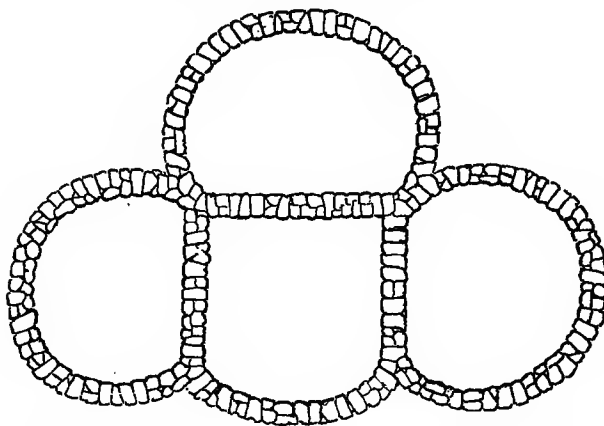


FIG. 494.—Evolution of rectangular forms in primitive architecture.

of a square are already formed, suggesting the parallelogramic as a convenient style of sequent architecture.

All this, I need scarcely add, agrees not only with my own observations in the field but with the kind of linguistic research above recorded. It would also apparently explain the occurrence of the circular semisubterranean *kí wi tsi we*, or estufas. These being sacred have retained the pristine form long after the adoption of a modified type of structure for ordinary or secular purposes, according to the well known law of survival in ceremonial appurtenances.

In a majority of the lava ruins (for example those occurring near Prescott, Arizona), I have observed that the sloping sides rather than the level tops of *mesa* headlands have been chosen by the ancients as building-sites. Here, the rude, square type of building prevails, not, however, to the entire exclusion of the circular type, which is represented by loosely constructed walls, always on the *outskirts* of the main ruins. The rectangular rooms are, as a rule, built row above row. Some of the houses in the upper rows give evidence of having overlapped others below. (See section, Fig. 495.)

FLAT AND TERRACED ROOFS DEVELOPED FROM SLOPING MESA-SITES.

We cannot fail to take notice of the indications which this brings before us.

(1) It is quite probable that the overlapping resulted from an increase in the numbers of the ancient builders relative to available area, this, as in the first instance, leading to a further massing together of the houses. (2) It suggested the employment of rafters and the formation of the *flat* roof, as a means of supplying a level entrance way and floor to rooms which, built above and to the rear of a first line of houses, yet extended partially over the latter. (3) This is I think the earliest form of the terrace.

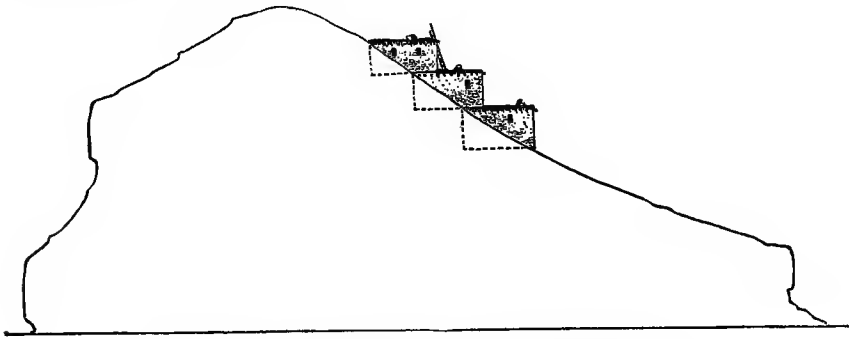


FIG. 495.—Section illustrating evolution of flat roof and terrace.

It is therefore not surprising that the flat roof of to-day is named *té k'os kwîn ne*, from *te*, space, region, extension, *k'os kwi e*, to cut off in the sense of closing or shutting in from one side, and *kwîn ne*, place of. Nor is it remarkable that no type of ruin in the Southwest seems to connect these first terraced towns with the later not only terraced but also literally cellular buildings, which must be regarded nevertheless as developed from them. The reason for this will become evident on further examination.

The modern name for house is *k'id kwîn ne*, from *k'id we*, water, and *kwîn ne*, place of, literally "watering place;" which is evidence that the first properly so called houses known to the Pueblos were solitary and built near springs, pools, streams, or well-places. The universal occurrence of the vestiges of single houses throughout the less forbidding tracts of the Pueblo country (see Figs. 496 and 497) leads to this inference and to the supposition that the necessity for protection being at last overcome, the denizens of the lava-fields, where planting was well-nigh impossible, descended, building wherever conditions favored the horticulture which gradually came to be their chief means of support. As irrigation was not known until long afterwards, arable areas were limited, hence they were compelled to divide into families or small

clans, each occupying a single house. The traces of these solitary farm-houses show that they were at first single-storied. The name of an upper room indicates how the idea of the second or third story was developed, as it is *ósh ten u thlan*, from *ósh ten*, a shallow cave, or rock-

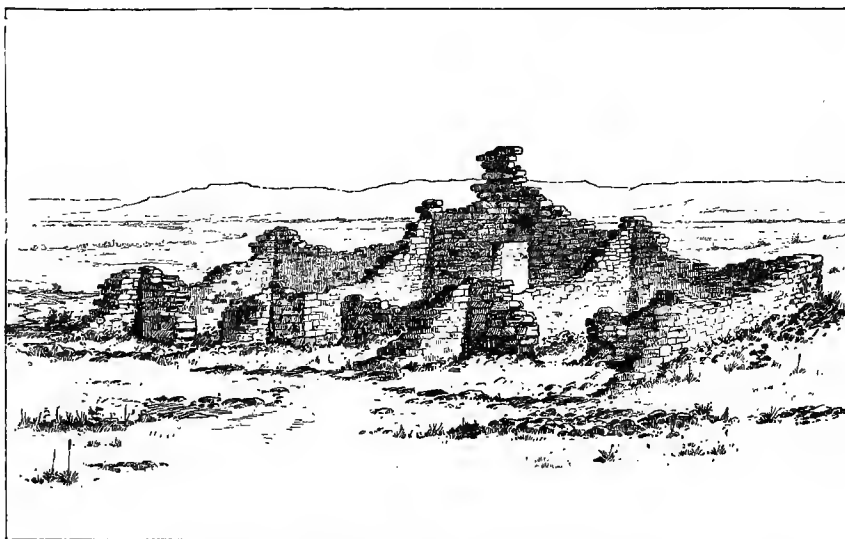


FIG. 496.—Perspective view of a typical solitary house.

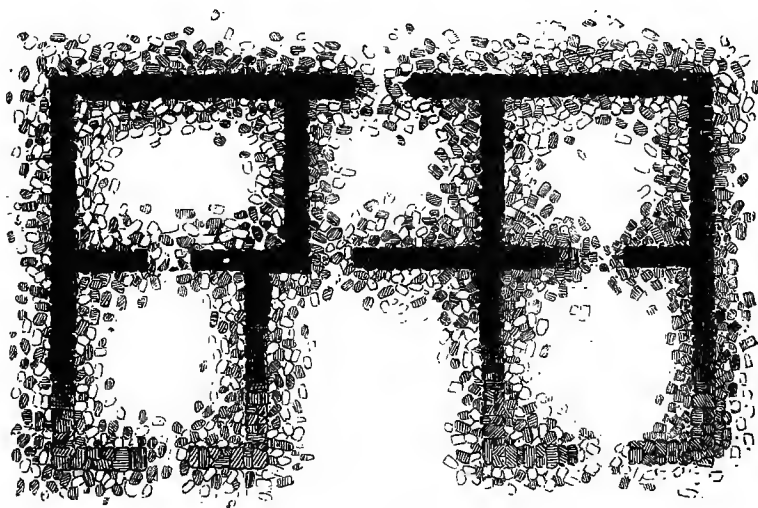


FIG. 497.—Plan of a typical solitary house.

shelter, and *ú thla nai e*, placed around, embracing, inclusive of. This goes to show that it was not until after the building of the first small farm-houses (which gave the name to houses) that the caves or rock-

shelters of the cliffs were occupied. If predatory border-tribes, tempted by the food-stores of the horticultural farm-house builders, made incursions on the latter, they would find them, scattered as they were, an easy prey.

ADDED STORIES FOR CLIFF DWELLINGS DEVELOPED FROM LIMITATIONS OF CLIFF-HOUSE SITES.

This condition of things would drive the people to seek security in the neighboring cliffs of fertile cañons, where not only might they build their dwelling places in the numerous rock-shelters, but they could also cultivate their crops in comparative safety along the limited tracts



FIG. 498.—A typical cliff-dwelling.

which these eyries overlooked. The narrow foothold afforded by many of these elevated cliff-shelves or shelters would force the fugitives to construct house over house; that is, build a second or upper story

around the roof of the cavern. What more natural than that this upper room should take a name most descriptive of its situation—as that portion built around the cavern-shelter or *ósh ten*—or that, when the intervention of peace made return to the abandoned farms of the plains or a change of condition possible, the idea of the second story should be carried along and the name first applied to it survive, even to the present day? That the upper story took its name from the rock-shelter may be further illustrated. The word *ósh ten* comes from *ó sho nan te*, the condition of being dusky, dank, or mildewy; clearly descriptive of a cavern, but not of the most open, best lighted, and driest room in a Pueblo house.

To continue, we may see how the necessity for protection would drive the petty clans more and more to the cliffs, how the latter at every available point would ultimately come to be occupied, and thus how the "*Cliff-dwelling*" (see Fig. 498), was confined to no one section but was as universal as the farm-house type of architecture itself, so widespread, in fact, that it has been heretofore regarded as the monument of a great, now extinct *race* of people!

COMMUNAL PUEBLOS DEVELOPED FROM CONGREGATION OF CLIFF-HOUSE TRIBES.

We may see, finally, how at last the cañons proved too limited and in other ways undesirable for occupation, the result of which was the confederation of the scattered cliff-dwelling clans, and the construction,



FIG. 499.—Typical terraced communal pueblo.

first on the overhanging cliff-tops, then on *mesas*, and farther and farther away, of great, many-storied towns, any one of which was named, in consequence of the bringing together in it of many houses and clans, *thlu él lon ne*, from *thlu a*, many springing up, and *él lon a*, that which stands, or those which stand; in other words, "many built standing together." This cannot be regarded as referring to the simple fact that a village is necessarily composed of many houses standing together. The name for any other village than a communal pueblo is *tí na kwín ne*, from *tí na*—many sitting around, and *kwín ne*, place of. This term is applied by the Zuñis to all villages save their own and those of ourselves, which latter they regard as Pueblos, in their acceptance of the above native word.

Here, then, in strict accordance with the teachings of myth, folk-lore and tradition, I have used the linguistic argument as briefest and most convincing in indicating the probable sequence of architectural types in the evolution of the Pueblo; from the brush lodge, of which only the name survives, to the recent and present terraced, many-storied, communal structures, which we may find throughout New Mexico, Arizona, and contiguous parts of the neighboring Territories.¹

¹See for confirmation the last Annual Report to the Archæological Institute of America, by Adolph F. Bandelier, one of the most indefatigable explorers and careful students of early Spanish history in America.

POTTERY AFFECTED BY ENVIRONMENT.

There is no other section of the United States where the potter's art was so extensively practiced, or where it reached such a degree of perfection, as within the limits of these ancient Pueblo regions. To this statement not even the prolific valleys of the Mississippi and its tributaries form an exception.

On examining a large and varied collection of this pottery, one would naturally regard it either as the product of four distinct peoples or as belonging to four different eras, with an inclination to the chronologic division.

When we see the reasonable probability that the architecture, the primeval arts and industries, and the culture of the Pueblos are mainly indigenous to the desert and semi-desert regions of North America, we are in the way towards an understanding of the origin and remarkable degree of development in the ceramic art.

In these regions water not only occurs in small quantities, but is obtainable only at points separated by great distances, hence to the Pueblos the first necessity of life is the transportation and preservation of water. The skins and paunches of animals could be used in the effort to meet this want with but small success, as the heat and aridity of the atmosphere would in a short time render water thus kept unfit for use, and the membranes once empty would be liable to destruction by drying. So far as language indicates the character of the earliest water vessels which to any extent met the requirements of the Zuñi ancestry, they were tubes of wood or sections of canes. The latter, in ritualistic recitation, are said to have been the receptacles that the creation-priests filled with the sacred water from the ocean of the cave-wombs of earth, whence men and creatures were born, and the name for one of these cane water vessels is *shó tom me*, from *shó e*, cane or canes, and *tóm me*, a wooden tube. Yet, although in the extreme western borders of the deserts, which were probably the first penetrated by the Pueblos, the cane grows to great size and in abundance along the two rivers of that country, its use, if ever extensive, must have speedily given way to the use of gourds, which grew luxuriantly at these places and were of better shapes and of larger capacity. The name of the gourd as a vessel is *shop tom me*, from *shó e*, canes, *pó pon nai e*, bladder-shaped, and *tóm me*, a wooden tube; a seeming derivation (with the exception of the interpolated sound significant of form) from *shó tom me*. The gourd itself is called *mó thlá á*, "hard fruit." The inference is that when used

as a vessel, and called *shop tom me*, it must have been named after an older form of vessel, instead of after the plant or fruit which produced it.

While the gourd was large and convenient in form, it was difficult of transportation owing to its fragility. To overcome this it was encased in a coarse sort of wicker-work, composed of fibrous yucca leaves or of flexible splints. Of this we have evidence in a series of gourd-vessels among the Zuñis, into which the sacred water is said to have been transferred from the tubes, and a pair of which one of the priests, who came east with me two years ago, brought from New Mexico to Boston in his hands—so precious were they considered as relics—for the purpose of replenishing them with water from the Atlantic. These vessels are encased rudely but strongly in a meshing of splints (see Fig. 500), and while I do not positively claim that they have been piously



FIG. 500.—Gourd vessel enclosed in wicker.

preserved since the time of the universal use of gourds as water-vessels by the ancestry of this people, they are nevertheless of considerable antiquity. Their origin is attributed to the priest-gods, and they show that it must have once been a common practice to encase gourds, as above described, in osiery.

POTTERY ANTICIPATED BY BASKETRY.

This crude beginning of the wicker-art in connection with water-vessels points toward the development of the wonderful water-tight basketry of the southwest, explaining, too, the resemblance of many of its typical forms to the shapes of gourd-vessels. Were we uncertain of

this, we might again turn to language, which designates the impervious wicker water-receptacle of whatever outline as *tóm ma*, an evident derivation from the restricted use of the word *tóm me* in connection with gourd or cane vessels, since a basket of any other kind is called *tsí ì le*.

It is readily conceivable that water-tight osiery, once known, however difficult of manufacture, would displace the general use of gourd-vessels. While the growth of the gourd was restricted to limited areas, the materials for basketry were everywhere at hand. Not only so, but basket-vessels were far stronger and more durable, hence more readily transported full of water, to any distance. By virtue of their rough surfaces, any leakage in such vessels was instantly stopped by a daubing of pitch or mineral asphaltum, coated externally with sand or coarse clay to harden it and overcome its adhesiveness.

We may conclude, then, that so long as the Pueblo ancestry were semi-nomadic, basketry supplied the place of pottery, as it still does for the less advanced tribes of the Southwest, except in cookery. Possibly for a time basketry of this kind served in place of pottery even for cookery, as with one of the above-mentioned tribes, the *Ha va su paí* or *Cogoninos*, of Cataract Cañon, Arizona. These people, until recently,

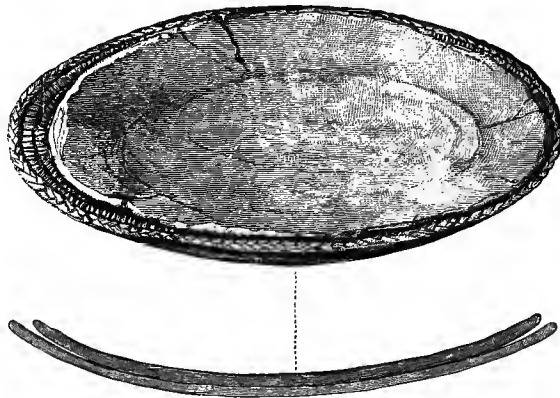


FIG. 501.—Havasupai clay-lined roasting-tray.

were cut off from the rest of the world by their almost impenetrable cañon, nearly half a mile in depth at the point where they inhabit it. For example, when I visited them in 1881, they still hafted sharpened bits of iron, like celts, in wood. They had not yet forgotten how to boil food in water-tight basketry, by means of hot stones, and continued to roast seeds, crickets, and bits of meat in wicker-trays, coated inside with gritty clay. (See Fig. 501.) The method of preparing and using these roasting-trays has an important bearing on several questions to which reference will be made further on. A round basket-tray, either loosely or closely woven, is evenly coated inside with clay, into which has been kneaded a very large proportion of sand, to prevent contraction and

consequent cracking from drying. This lining of clay is pressed, while still soft, into the basket as closely as possible with the hands and then allowed to dry. The tray is thus made ready for use. The seeds or other substances to be parched are placed inside of it, together with a quantity of glowing wood-coals. The operator, quickly squatting, grasps the tray at opposite edges, and, by a rapid spiral motion up and down, succeeds in keeping the coals and seeds constantly shifting places and turning over as they dance after one another around and around the tray, meanwhile blowing or puffing the embers with every breath to keep them free from ashes and glowing at their hottest.

That this clay lining should grow hard from continual heating, and in some instances separate from its matrix of osiers, is apparent. The clay form thus detached would itself be a perfect roasting-vessel.

POTTERY SUGGESTED BY CLAY-LINED BASKETRY.

This would suggest the agency of gradual heat in rendering clay fit for use in cookery and preferable to any previous makeshift. The modern Zuñi name for a parching-pan, which is a shallow bowl of blackware, is *thlé mon ne*, the name for a basket-tray being *thlä' lin ne*. The latter name signifies a shallow vessel of twigs, or *thlá we*; the former etymologically interpreted, although of earthenware, is a hemispherical vessel of the same kind and *material*. All this would indicate that the *thlä' lin ne*, coated with clay for roasting, had given birth to the *thlé mon ne*, or parching-pan of earthenware. (See Fig. 502.)

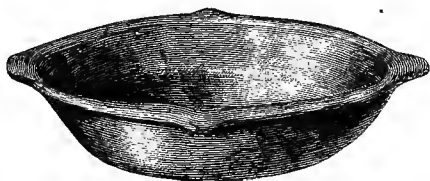


FIG. 502.—Zuñi earthenware roasting tray.

Among the Havasupai, still surviving as a sort of bucket, is the basket-pot or boiling-basket, for use with hot stones, which form I have also found in some of the cave deposits throughout the ancient Zuñi country. These vessels (see Fig. 503) were bottle-shaped and provided near the rims of their rather narrow mouths with a sort of cord or strap-handle, attached to two loops or eyes (Fig. 503 *a*) woven into the basket, to facilitate handling when the vessel was filled with hot water. In the manufacture of one of these vessels, which are good examples of the helix or spirally-coiled type of basket, the beginning was made

at the center of the bottom. A small wisp of fine, flexible grass stems or osiers softened in water was first spirally wrapped a little at one end

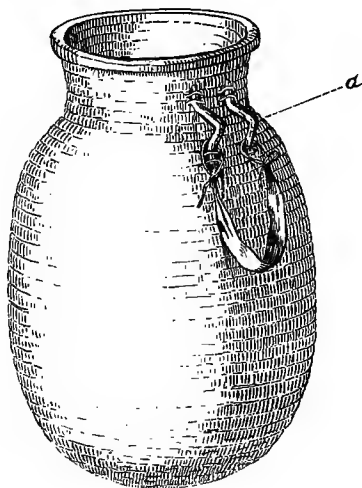


FIG. 503.—Havasupai boiling-basket.

with a flat, limber splint of tough wood, usually willow (see Fig. 504). This wrapped portion was then wound upon itself; the outer coil thus formed (see Fig. 505) being firmly fastened as it progressed to the one already made by passing the splint wrapping of the wisp each time it was wound around the latter through some strands of the contiguous inner coil, with the aid of a bodkin. (See Fig. 506.) The bottom was



FIG. 504.



FIG. 505.

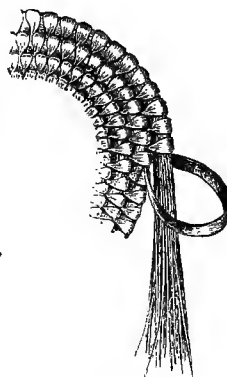


FIG. 506.

Sketches illustrating manufacture of spirally-coiled basketry.

rounded upward and the sides were made by coiling the wisp higher and higher, first outward, to produce the bulge of the vessel, then inward, to form the tapering upper part and neck, into which the two little twigs or splint loop-eyes were firmly woven. (See again Fig. 503 *a*.)

These and especially kindred forms of basket-vessels were often quite elaborately ornamented, either by the insertion at proper points of dyed wrapping-splints, singly, in pairs, or in sets, or by the alternate painting of pairs, sets, or series of stitches. Thus were produced angular devices, like serrated bands, diagonal or zigzag lines, chevrons, even terraces and frets. (See Figs. 507, 508, 509.) There can be no doubt that

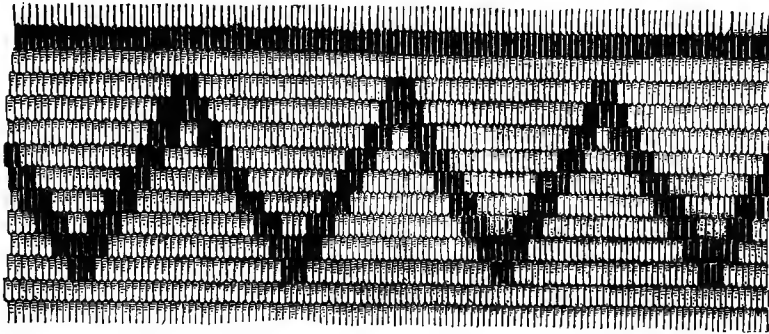


FIG. 507.—Typical basket decoration.

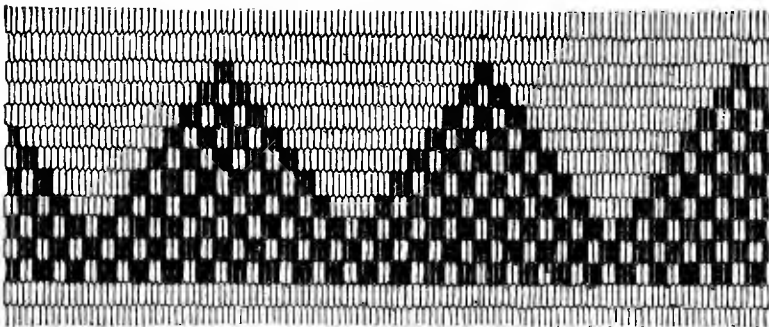


FIG. 508.—Typical basket decoration.

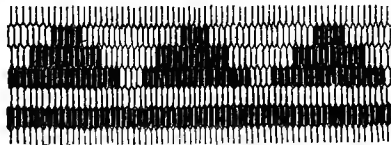


FIG. 509.—Typical basket decoration.

these styles and ways of decoration were developed, along with the weaving of baskets, simply by elaborating on suggestions of the lines and figures unavoidably produced in wicker-work of any kind when strands of different colors happened to be employed together. Even slight discolorations in occasional splints would result in such suggestions, for the stitches would here show, there disappear. The probability of this view of the accidental origin of basket-ornamentation may

be enhanced by a consideration of the etymology of a few Zuñi decorative terms, more of which might be given did space admit. A terraced lozenge (see Figs. 510, 511), instead of being named after the abstract

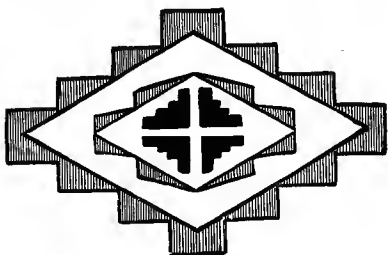


FIG. 510.

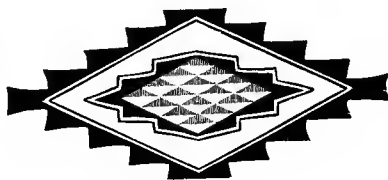


FIG. 511.

Terraced lozenge decoration, or "double-splint-stitch-forms."

word *a wi thlui ap í pä tchi na*, which signifies a double terrace or two terraces joined together at the base, is designated *shu k'u tu li a tsi' nan*, from *shu e*, splints or fibers; *k'u tsu*, a double fold, space, or stitch (see

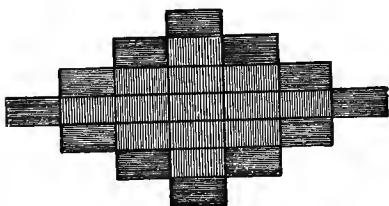


FIG. 512.

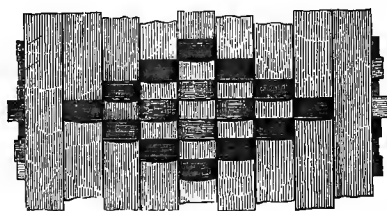


FIG. 513.

Double-splint-stitch.

Figs. 512, 513); *li a*, an interpolation referring to form; and *tsi' nan*, mark; in other words, the "double-splint-stitch-form mark." Likewise, a pat-

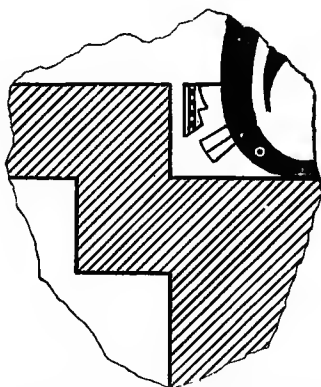


FIG. 514.—Diagonal parallel-line decoration.

tern, composed principally of a series of diagonal or oblique parallel lines *en masse* (see Fig. 514), is called *shu' k'ish pa tsi' nan*, from *shu e*,

splints; *k'i'sh pai e*, tapering (*k'ish pon ne*, neck or smaller part of anything); and *tsi nan*, mark; that is, "tapering" or "neck-splint mark." Curiously enough, in a bottle-shaped basket as it approaches completion the splints of the tapering part or neck all lean spirally side by side of one another (see Fig. 515), and a term descriptive of this has come

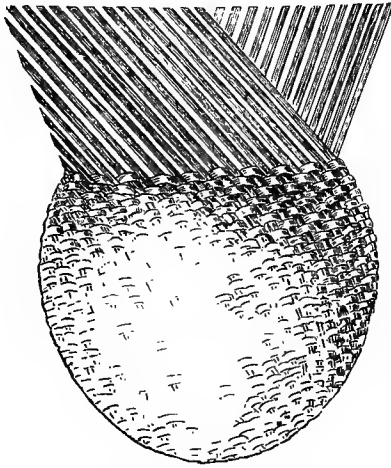


FIG. 515.—Splints at neck of unfinished basket.

to be used as that applied to lines resembling it, instead of a derivative from *ä's sël lai e*, signifying an oblique or leaning line. Where splints variously arranged, or stitches, have given names to decorations—applied even to painted and embroidered designs—it is not difficult for us to see that these same combinations, at first unintentional, must have suggested the forms to which they gave names as decorations.

Pueblo coiled pottery developed from basketry.—Seizing the suggestion afforded by the rude tray-molded parching-bowls, particularly after it was discovered that if well burned they resisted the effects of water as well as of heat, the ancient potter would naturally attempt in time to reproduce the boiling-basket in clay. She would find that to accomplish this she could not use as a mold the inside of the boiling-basket, as she had the inside of the tray, because its neck was smaller than its body. Nor could she form the vase by plastering the clay outside of the vessel, not only for the same reason, but also because the clay in drying would contract so much that it would crack or scale off. Naturally, then, she pursued the process she was accustomed to in the manufacture of the basket-bottle. That is, she formed a thin rope of soft clay, which, like the wisp of the basket, she coiled around and around a center to form the bottom, then spirally upon itself, now widening the diameter of each coil more and more, then contracting as she progressed upward until the desired height and form were attained. As the clay was adhesive, each coil was attached to the one already

formed by pinching or pressing together the connecting edges at short intervals as the winding went on. This produced corrugations or indentations marvelously resembling the stitches of basket-work. Hence accidentally the vessel thus built up appeared so similar to the basket which had served as its model that evidently it did not seem complete until this feature had been heightened by art. At any rate, the ma-

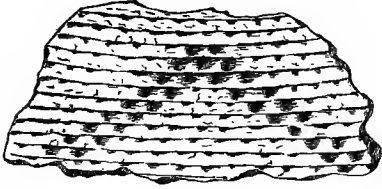


FIG. 516.

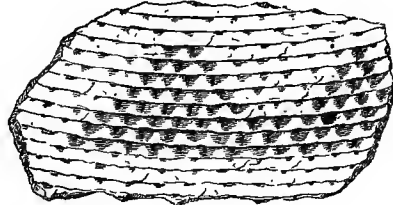


FIG. 517.

Examples of indented decoration on corrugated ware.

jority of specimens belonging to this type of pottery—especially those of the older periods during which it was predominant—are distinguished by an indented or incised decoration exactly reproducing the zigzags, serrations, chevrons, terraces, and other characteristic devices of water-tight basketry. (Compare Figs. 516, 517 with Figs. 507, 508.) Evi-

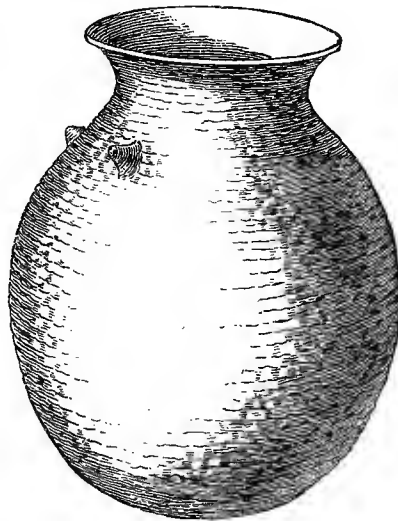


FIG. 518.—Cooking-pot of corrugated ware, showing conical projections near rim.

dently with a like intention two little cone-like projections were attached to the neck near the rim of the vessel (see Fig. 518) which may hence be regarded as survivals of the loops whereby it has been seen the ends of the strap-handle were attached to the boiling-basket. (See again Fig. 503, *a*.) Although varied in later times to form scrolls,

rosettes, and other ornate figures (see Fig. 519), they continued ever after quite faithful features of the spiral type of pot, and may even sometimes be seen on the cooking-vessels of modern Zuñi. To add yet another link to this chain of connection between the coiled boiling-basket and the spirally-built cooking-pot, the names of the two kinds



FIG. 519.—Cooking-pot of corrugated ware, showing modified projections near rim.

of vessels may be given. The boiling-basket was known as *wó li a k'ia ní tu li a tom me*, the corrugated cooking pot as *wo li a k'ia te' ní tu li a ton ne*, the former signifying "coiled cooking-basket," the latter "coiled earthenware cooking-basket."

Other very important types of vessels were made in a similar way.

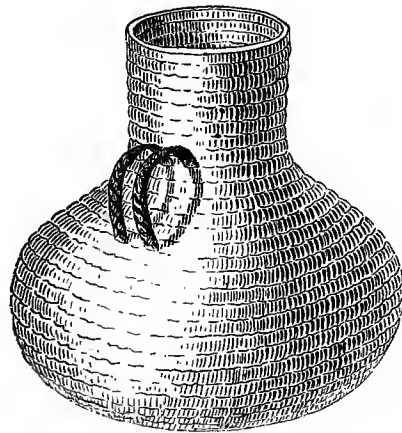


FIG. 520.—Wicker water-bottle, showing double loops for suspension.

I refer especially to canteens and water-bottles. The water-bottle of wicker differed little from the boiling-basket. It was generally rounder-

bodied, longer and narrower necked, and provided at one side near the shoulders or rim with two loops of hair or strong fiber, usually braided. (See Fig. 520.) The ends of the burden-strap passed through these loops made suspension of the vessel easy, or when the latter was used simply as a receptacle, the pair of loops served as a handle. Some-



FIG. 521.—Water-bottle of corrugated ware, showing double handle.

times these basket bottles were strengthened at the bottom with raw-hide or buckskin, stuck on with gum. When, in the evolution of the pitcher, this type of basket was reproduced in clay, not only was the general form preserved, but also the details above described. That is,



FIG. 522.—Water-bottle of corrugated ware, showing plain bottom.

without reference to usefulness—in fact at no small expense of trouble—the handles were almost always made double (see Fig. 521); indeed, often braided, although of clay. Frequently, especially as time went on, the bottoms were left plain, as if to simulate the smooth skin-bottoming of the

basket-bottles. (See Fig. 522.) At first it seems odd that with all these points of similarity the two kinds of water-vessel should have totally dissimilar names; the basket-bottle being known as the *k'íd pu k'ia tom me*, from *k'íd pu k'ia*, "for carrying or placing water in," and *tóm me*; the handled earthen receptacle, as the *i mush ton ne*. Yet when we consider that the latter was designed not for transporting water, for which it was less suited than the former, but for holding it, for which it was even preferable, the discrepancy is explained, since the name *i mush ton ne* is from *i' mu*, to sit, and *tóm me*, a tube. This indicates, too, why the basket-bottle was not displaced by the earthen bottle. While the former continued in use for bringing water from a distance, the latter was employed for storing it. As the fragile earthen vessels were much more readily made and less liable to become tainted, they were exclusively used as receptacles, removing the necessity of the tedious manufacture of a large number of the basket-bottles. Again, as the pitcher was thus used exclusively as a receptacle, to be set aside in household or camp, the name *i' mush ton ne* sufficed without the interpolation *te*—"earthenware"—to distinguish it as of *terra cotta* instead of osiery.

POTTERY INFLUENCED BY LOCAL MINERALS.

Before discussing the origin of other forms, it may be well to consider briefly some influences, more or less local, which, in addition to the general effect of gourd-forms in suggesting basket-types and of the latter in shaping earthenware, had considerable bearing on the development of ceramic art in the Southwest, pushing it to higher degrees of perfection and diversity in some parts than in others.

Perhaps first in importance among these influences was the mineral character of a locality. Where clay occurred of a fine tough texture, easily mined and manipulated, the work in *terra cotta* became proportionately more elaborate in variety and finer in quality. There are to be found about the sites of some ancient pueblos, potsherds incredibly abundant and indicating great advancement in decorative art, while near others, architecturally similar, even where evidence of ethnic connection is not wanting, only coarse, crudely-molded, and painted fragments are discoverable, and these in limited quantity.

An example in point is the ruined pueblo of *A' wat u i* or *Aguatóbi*, as it was known to the Spaniards at the time of the conquest, when it was the leading "city of the Province of Tusayan," now Moki. Over the entire extent of this ruin, and to a considerable distance around it, fragments of the greatest variety in color, shape, size, and finish of ware occur in abundance. In the immediate neighborhood, however, are extensive, readily accessible formations producing several kinds of

clay and nearly all the color minerals used in the Pueblo potter's art. Yet at the greatest ruin on the upper Colorado Chiquito (in an arm of the valley of which river *A' wat ú i* itself occurs), where the fallen walls betoken equal advancement in the status of the ancient builders and indicate by their vast extent many times the population of *A' wat u i*, the potsherds are coarse, irregular in curvature, badly decayed, and exceptionally scarce. In the immediate neighborhood of this ruin, I need not add, clay is of rare occurrence and poor in quality.

A more reliable example is furnished by the farming pueblos of Zuñi. At *Hé sho ta tsí nan* or Ojo del Pescado, fifteen miles east of Zuñi, clays of several varieties and color minerals are abundant. The finest pottery of the tribe is made there in great quantity, while, notwithstanding the facilities for transportation which the Zuñis now possess, at the opposite farming town of *K'íáp kwai na kwin*, or Los Ojos Calientes, where clay is scarce and of poor texture, the pottery, although somewhat abundant, is of miserable quality and of bad shape.

In quality of art quite as much as in that of material this local influence was great. In the neighborhood of ruined pueblos which occur near mineral deposits furnishing a great variety of pigment-material, the decoration of the ceramic remains is so surprisingly and universally elaborate, beautiful, and varied as to lead the observer to regard the people who dwelt there as different from the people who had inhabited towns about the sites of which the sherds show not only meager skill and less profuse decorative variety, but almost typical dissimilarity. Yet tradition and analogy, even history in rare instances, may declare that the inhabitants of both sections were of common derivation, if not closely related and contemporaneous. Probably, at no one point in the Southwest was ceramic decoration carried to a higher degree of development than at *A' wat u i*, yet the Oraibes, by descent the modern representatives of the *A' wat u i* ans are the poorest potters and painters among the Mokis. Near their pueblo the clay and other mineral deposits mentioned as abundant at *A' wat u i* are meager and inaccessible. Still, it may be urged that time may have introduced other than natural causes for change; this could not be said of another example pertaining to one period and a single tribe. I refer again to the Zuñis. The manufactures of Pescado probably surpass in decorative excellence all other modern Pueblo pottery, while both in their lack of variety and in delicacy of execution of their painted patterns the fictiles of Ojo Caliente are so inferior and diverse from the other Zuñi work that the future archæologist will have need to beware, or (judging alone from the ceramic remains which he finds at the two pueblos) he will attribute them at least to distinct periods, perhaps to diverse peoples.

POTTERY INFLUENCED BY MATERIALS AND METHODS USED IN BURNING.

Other influences, to a less extent local, had no inconsiderable effect on primitive Pueblo pottery: materials employed and methods resorted to in burning.

Only one kind of fuel, except for a single class of vessels, is now used in pottery-firing; namely, dried cakes or slabs of sheep-dung. Anciently, several varieties, such as extremely dry sage-brush or grease-wood, piñon and other resinous woods, dung of herbivora when obtainable, charcoal, and also bituminous or cannel-coal were employed. The principal agent seems, however, to have been dead-wood or spunk, pulverized and moistened with some adhesive mixture so that flat cakes could be formed of it. I infer this not alone from Zuñi tradition, which is not ample, but from the fact that the sheep-dung now used is called, in the condition of fuel, *kú ne a*, while its name in the abstract or as sheep-dung simply is *má he*. Dry-rot wood or spunk is known as *kú me*. In the shape of flat cakes it would be termed *kú mo we* or *kú me a*, whence I doubt not the modern word *kú ne a* is derived.

Of methods, four were in vogue. The simplest and worst consisted in burying the vessel to be burned under hot ashes and building a fire around it, or inverting it over a bed of embers and encircling it with a blazing fire of brush-wood, as is still the practice of the Maricopas and other sedentary tribes of the Gila. The most common was building a little cone or dome of fuel over the articles to be baked and firing; the most perfect was to dig or construct under ground a little cist or kiln, line it evenly with fuel, leaving a central space for the green ware, and slowly fire the whole mass.

Irrespective of the kind of fuel used, the baking by ash-burial made the ware gray, cloudy, or dingy, and not very durable. Pottery burned with sage or grease-wood was firm, light gray unless of ochereous clay, less cloudy than if ash-baked, yet mottled. Turf and dung, although easily managed, did not thoroughly harden the pottery, but burned it very evenly; dead wood or spunk-cakes baked as evenly as any of the materials thus far mentioned, and more thoroughly than the others. Resinous or pitchy woods, while they produced a much higher degree of heat, could be used only when color was unimportant, as they still are used to some extent in the firing of black-ware or cooking pots. The latter, while still hot from a preliminary burning, if coated externally with the mucilaginous juice of green cactus, internally with piñon gum or pitch, and fired a second or even a third time with resinous wood-fuel, are rendered absolutely fire-proof, semi-glazed with a black gloss inside, and wonderfully durable. Tradition represents that by far the most perfect fuel was found to be cannel coal, and that, where abundant, accessible, and of an extremely bituminous quality, it was much used.

The traces of little pit-kilns filled with cinders of mineral coal about many of the ruins in the northwestern portion of the Pueblo region, coupled with the semi-fusion and well-preserved condition of most of the ancient jars found associated with them, certainly give support to this tradition. Happily I have additional confirmation. When, two years ago, I was engaged in making ethnologic collections at Moki for the United States National Museum, some Indians of the *Te wa* pueblo brought me a quantity of pottery. It had been made with the purpose of deceiving me, in careful imitation of ancient types, and was certainly equal to the latter in lightness and the condition of the burning. I paid these enterprising Indians as good a price as they had been accustomed to getting for genuine ancient specimens, but told them that, being a Zuñi, I was almost one of themselves, hence they could not deceive me, and asked them how they had so cleverly succeeded in burning the ware. They laughingly replied that they had simply dug some bituminous coal (*u á ko*) and used it in little pits. When I further asked them why they did not burn their household utensils thus, they said it was too uncertain; representing that the pots did not like to be burned in the *u á ko*, probably because it was so hot, hence they broke more frequently than if fired in the common way with dried sheep-dung; furthermore the latter was less troublesome, requiring only to be dug from the corrals near at hand and dried to make it ready for use.

This partially explains why the art of water-tight basket-making has here gradually declined since the Spanish conquest, as the ceramic industry has increased with the introduction of the sheep, which furnishes fuel for the burning, and the horse, before unknown, has facilitated transportation, whereby trade for this class of basketry with the distant nomadic tribes who still make it is rendered easy. Withal, however, the quality of pottery has not improved, but has deteriorated; as sheep-dung is but an inferior fuel for firing.

EVOLUTION OF FORMS.

Bearing these statements in mind, the discussion of the evolution as well as of the distribution of form, and later of the evolution of decoration, in pottery will become easier. By lingering steps there was early developed a method of building up vessels by a process differing in part from the spiral. As the parching-bowl had been evolved from the roasting-tray, so, we may infer, the food-bowl was suggested by the hemispherical food-trencher of wicker-work. (See Fig. 523.) Yet, curiously

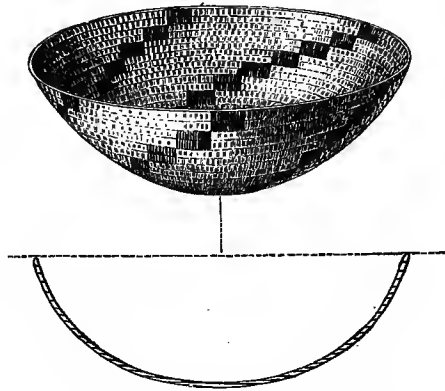


FIG. 523.—Food trencher of wicker-work.

enough, the inside of the latter seems not at first to have been used in molding the food-bowl, as, it will be remembered, the tray had been in forming the parching-pan. On the contrary, the clay was coiled around



FIG. 524.—Food trencher of wicker-work inverted as used in forming food-bowls of earthenware.

and around the *outside* of the bottom of an inverted basket bowl (see Fig. 524), instead of being pressed evenly into it. As with the cooking pot, so with this; as the coiling progressed it was corrugated, not so much,

however from necessity, as from habit. In consequence of the difficulty experienced in removing these bowl-forms from the bottoms of the baskets—which had to be done while they were still plastic, to keep them from cracking—they were made very shallow. Hence the specimens found among the older ruins and graves are not only corrugated outside, but are also very wide in proportion to their height. (See Fig. 525.) As time went on it was found that bowls might be made deeper,

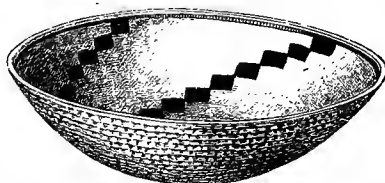


FIG. 525.—Ancient bowl of corrugated ware.

and yet readily be taken off from the basket bottoms, if slightly moistened outside and pressed evenly all around, or, better still, scraped; for, being plastic, this proceeding caused them to grow thinner, consequently larger, thereby to loosen from the basket over which they had been molded. As a result of this scraping, however, the corrugated surface was destroyed, nor could it easily be restored. Therefore bowls when made deep were, as a rule, smooth on the outside as well as on the interior surface. When by a perfectly natural sequence of events—as will be shown further on—ornamentation by painting came to be applied first to the plain interiors of the bowls, the smooth outer surface was found preferable to the corrugated surface, not only because it took paint more readily, but also because the bowl, when painted outside as well as inside, formed a far handsomer utensil for household use than if simply decorated by the older methods. As a consequence, we find that, while the larger vessels continued to be corrugated and indented, the smoothed and painted bowl came into general use. Associated later on with this secondary type of bowls occurred the larger vessels plain at the bottoms, still corrugated at the sides. Nor is this surprising, as the bowl, molded on the basket bottom and there smoothed, could be afterward built up by the spiral process. When in time the huge hemispherical canteens or water carriers of earthen-ware replaced the basket bottles, so also the water jar or *olla* replaced the handled sitter or pitcher, since it could be made larger to receive more copious supplies of water than the strength of the frail handles on the pitchers would warrant.

The water jar, like the food-bowl, is a conspicuous household article; for which reason the Zuñi woman expends all her ability to render them handsome. Judging by this, the desire to decorate the water-vessel with paint, like its constant companion the food-bowl, would early lead to the attempt to make its surface smooth. This would need to be effected while the article was still soft; which necessity probably led to the discovery that a jar of the corrugated or simply coiled type may be

smoothed while still plastic without danger of distortion, no matter what its size, if supported at the bottom in a basket or other mold so that it may be shifted or turned about without direct handling. (See Fig. 526.)



FIG. 526.—Basket-bowl as base-mold for large vessels.

After this discovery was made, the molding of large vessels was no longer accomplished by the spiral method exclusively. A lump of clay,

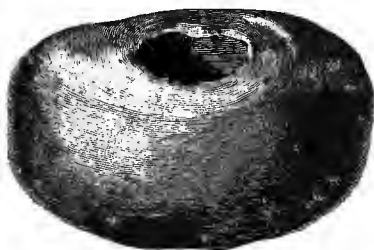


FIG. 527.—Clay nucleus for a vessel.

hollowed out (see Fig. 527), was shaped how rudely so ever on the bottom of the basket or in the hand (see Fig. 528), then placed inside of a

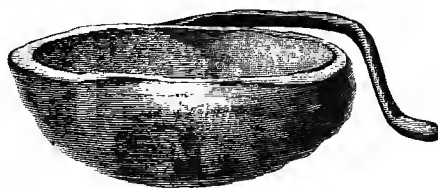


FIG. 528.—Clay nucleus shaped to form the base of a vessel.

hemispherical basket-bowl and stroked until pressed outward to conform with the shape, and to project a little above the edges of its tem-

porary mold, whence it was built up spirally (see Fig. 529) until the desired form had been attained, after which it was smoothed by scraping (see Fig. 530).

The necks and apertures of these earliest forms of the water jar were made very small in proportion to their other dimensions, presumably on account of the necessity of often carrying them full of water over steep and rough *mesa* paths, coupled perhaps with the imitation of



FIG. 529.—Clay nucleus in base-mold, with beginning of spiral building.

other forms. To render them as light as possible they were also made very thin. One of the consequences of all this was that when large they could not be stroked inside, as the shoulders or uttermost upper peripheries of the vessel could not be reached with the hand or scraper through the small openings. The effect of the pressure exerted in smoothing them on the outside, therefore, naturally caused the upper parts to



FIG. 530.—First form of vessel.

sink down, generating the spheroidal shape of the jar (see Fig. 531), one of the most beautiful types of the olla ever known to the Pueblos. At Zuñi, wishing to have an ancient jar of this form which I had seen, reproduced, I showed a drawing of it to a woman expert in the manufacture of pottery. Without any instructions from me beyond a mere statement of my wishes, she proceeded at once to sprinkle the inside of

a basket-bowl with sand, managing the clay in a way above described and continuing the vessel-shaping upward by spiral building. She did not at first make the shoulders low or sloping, but rounded or arched



FIG. 531.—Secondary form in the mold.

them upward and outward (see again Fig. 529). At this I remonstrated, but she gave no heed other than to ejaculate "*wá na ní, ànd!*" which meant "just wait, will you!" When she had finished the rim, she easily caused the shoulders to sink, simply by stroking them—more where uneven than elsewhere—with a wet scraper of gourd (see Fig. 532, *a*) until



FIG. 532.—Scrapers of gourd and earthenware for smoothing pottery.

she had exactly reproduced the form of the drawing. She then set the vessel aside *in* the basket. Within two days it shrank by drying at the rate of about one inch in twelve, leaving the basket far too large. (See Fig. 533.) It could hence be removed without the slightest difficulty.



FIG. 533.—Finished form of vessel in mold, showing amount of contraction in drying.

The sand had prevented contact with the basket which would have caused the clay vessel to crack as the latter was very thin. This process

exists in full force to-day with the Oraibes in the modeling of convex-bottomed vessels, and the Zuñis thus make their large bowls and huge drum-jars.

Upon the bottoms of many jars of these forms, I have observed the impressions of the wicker bowls in which they had been molded—not entirely to be removed, it seems, by the most assiduous smoothing before burning; for, however smooth any exceptional specimen may appear, a squeeze in plaster will still reveal traces of these impressions.

A characteristic of these older forms of the water-jar is that they are invariably flat or round-bottomed, while more recent and all modern



FIG. 534.—Profile of olla, or modern water-jug.

types of the olla (see Fig. 534) are concave or hollowed at the base (see Fig. 535) to facilitate balancing on the head. Outside of this concavity and entirely surrounding it (Fig. 536, *a*) is often to be observed an indentation (see Fig. 536, *b*) usually slight although sometimes pronounced.

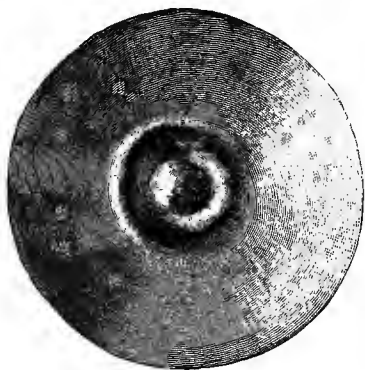


FIG. 535.—Base of olla.

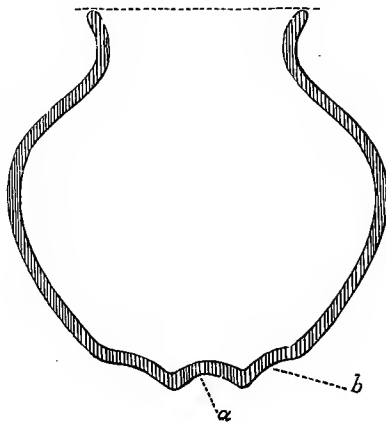


FIG. 536.—Section of olla.

This has no use, but there is of course a reason for its occurrence which, if investigated, may throw light on the origin of the modern type of the

olla itself. The older or round-bottomed jars were balanced on the head in carrying, by means of a wicker-work ring, a kind of "milk-maid's boss." (See Fig. 537.) These annular mats are still found among the ruins and cave-deposits, and continue in use with the modern Pueblos for



FIG. 537.—Annular mat of wicker, or "milkmaid's boss."

supporting convex-bottom cooking pots on the floor as well as for facilitating the balancing of large food-bowls on the head. (See Fig. 538.) Obviously the latter dishes have never been hollowed as the ollas have been, because, since they were used as eating-bowls, the food could be removed from a plain bottom more easily than from a convex surface, which would result from the hollowing underneath. Supposing that a



FIG. 538.—Use of annular mat illustrated.

water-jar chanced to be modeled in one of the convex-bottom bread-baskets (see Fig. 539), it would become necessary, on account of the thickness of these wicker bowls, to remove the form from the mold before it dried. By absorption it would dry so rapidly that it would crack, especially in contracting against the convexity in the center of the basket-bottom. (See Fig. 539, *a*.) In order that this form might be supported in an upright position until dry, it would naturally be placed on one of the wicker-rings. Moreover, that the bottom might not sink down or fall out, a wad of some soft substance would be placed within the ring. (See Fig. 540, *a*.) As a consequence the weight of the plastic vessel would press the still soft bottom against the central wad, (Fig. 540, *a*) and the

wicker ring (Fig 540, *c*) sufficiently to cause the rounding upward of the cavity (Fig. 540, *b*) first made by the convex-bottom of the basket-mold, as well as form the encircling indentation (Fig. 540, *c*). Thus by accident, probably, only possibly by intention, was evolved the most useful and distinctive feature of the modern water-jar or olla, the *concave bottom*. This, once produced, would be held to be peculiarly con-

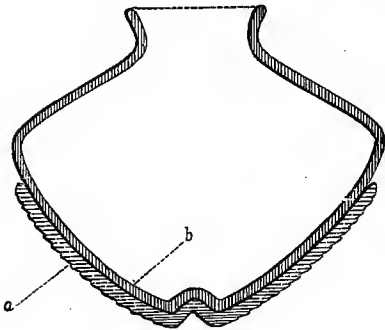


FIG. 539.—Section of incipient vessel in basket-mold.

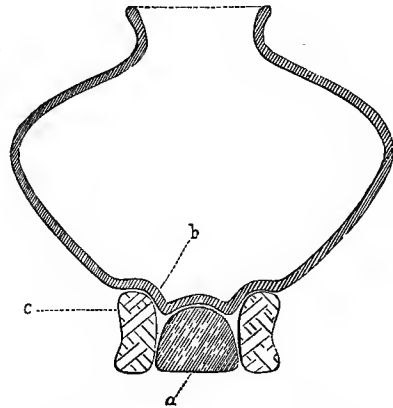


FIG. 540.—Section of vessel supported for drying.

venient, dispensing with the use of a troublesome auxiliary. Its reproduction would present grave difficulties unless the bottom of the first vessel, thickly coated with sand to prevent cracking, was employed as a mold, instead of the absorbent convex-centered basket-bowl.

I infer this because, to-day, a Zuñi woman is quite at a loss how to hollow the bottom of a water-jar if she does not possess a form or mold made from the base of some previously broken jar of the same type. She therefore, carefully preserves these precious bottoms of her broken ollas, even cementing together fractured ones, when not too badly shattered, with a mixture of pitch or mineral asphaltum and sand. I

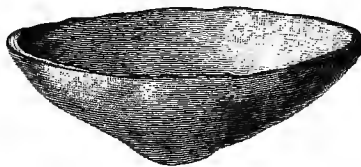


FIG. 541.—Base-mold (bottom of water-jar).

have seen as many as a dozen or more of these molds (see Fig. 541) in a single store room.

As the practice of molding all new vessels of this class in the bottoms of older ones was general—I might say invariable—any peculiarities of form in the originals must have been communicated to those ensuing; from the latter to others, and so on, though in less and less

degree, to the present time. This theory is but tentative, yet it would also explain, on the score of association, why the Pueblo women slightly prefer the jars showing the indentation in question to more regular ones. With the change from elevated cliff or *mesa* habitations to more accessible ones, the Pueblo Indians were enabled to enlarge the apertures of their water-jars, since not only did the concave bases of the latter make the balancing of them more secure, but the trails over which they had to be carried from watering place to habitation were less rugged. A natural result of this enlargement of the openings, which admitted access with the scraper to the interior peripheries of the thin-walled jars, was the rounding upward of their shoulders, making them taller in proportion to their diameters. This modification of form in the water-jar, taken in connection with the fact that thus changed, it displaced the daily use of the canteen, explains the totally dissimilar names which were applied to the two types. The older, or spheroidal olla, was known as the *k'íáp ton ne*, from *k'íá pu*, to place or carry water in, and *tóm me*; while the newer olla is called *k'íá wih na k'ia té èle*, from *k'íá wih na ki'a na ki'a*, for bringing of water: *té*, earthen-ware, and *è' le* or *è'l lai e*, to stand or standing. The latter term, *té è le*, is generic, being applied to nearly all *terra cotta* vessels which are taller than they are broad. *Té*, earthen ware, is derived from *t'eh'*, the root also of *té ne a*, to resound, to sound hollow; while *è le*, from *è'l le* or *è'l lai é*, to stand, is obviously applied in significance of comparative height as well as of function.

Thus I have thrown together a few conjectures and suggestions relative to the origin of the Southwestern pottery and the evolution of its principal forms.

EVOLUTION OF DECORATION.

I might go on, appealing to language to account for nearly every variety of pottery found existing as a *type* throughout the region referred to; but a subject inseparably connected with this, throwing light on it in many ways, and possessing in itself great interest, claims treatment on the few remaining pages of this essay. I refer to the evolution and significance or symbolism of Pueblo ceramic decorations.

Before proceeding with this, however, I must acknowledge that I am as much indebted to the teachings of Mr. E. B. Tylor, in his remarkable works on *Man's Early History and Primitive Culture*, to Lubbock, Daniel Wilson, Evans, and others, for the direction or *impetus* of these inquiries, as I am to my own observations and experiments for its development.

The line of gradual development in ceramic decorations, especially of the symbolic element, treated as a subject, is wider in its applicability to the study of primitive man, because more clearly illustrative of the growth of culture. I regret, therefore, that it must here be dealt with only in a most cursory manner. Large collections for illustration would be essential to a fuller treatment, even were space unlimited.

Decoratively, Pueblo pottery is characterized by two marked features: angular designs predominate and ornamental effect depends as much

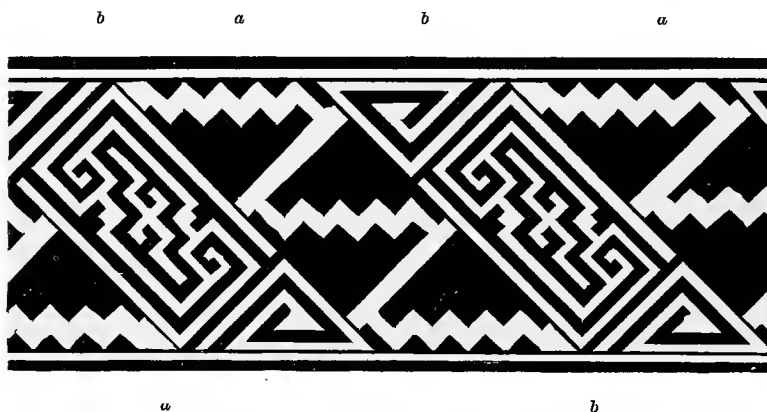


FIG. 542.—Example of Pueblo painted ornamentation.

on the open or undecorated space as on the painted lines and areas in the devices. (See Fig. 542.) While this is true of recent and modern wares, it is more and more notably the case with other specimens in a ratio increasing in proportion to their antiquity.

We cannot explain these characteristics, and the conventional aspect of the higher and symbolic Pueblo ceramic decorations which grew out of them, in a better way than to suppose them, like the forms of this pottery, to be the survivals of the influence of basketry. (See, for comparison, Figs. 543, 544.) I shall be pardoned, therefore, for elaborating

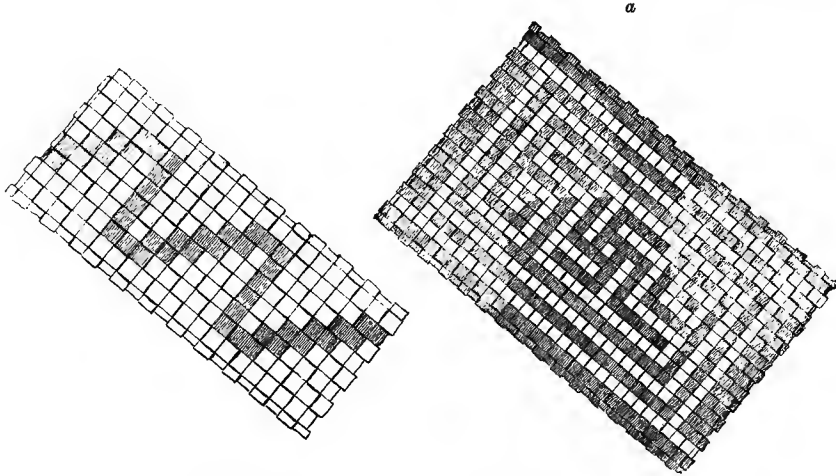


FIG. 543.

FIG. 544.

Amazonian basket decorations.

suggestions already made in this direction, in the paragraphs which treated of the ornamentation of spiral ware, and of the derivation of basket decorations from stitch- and splint-suggested figures. All students of early man understand his tendency to reproduce habitual forms in accustomed association. This feeling, exaggerated with savages by a belief in the actual relationship of resemblance, is shown in the reproduction of the decorations of basket vessels on the clay vessels made from them or in imitation of them.

In entire conformity with this, the succession in the methods of the ornamentation of Pueblo pottery seems to have been first by incision or indentation; then by relief; afterward by painting in black on a natural or light surface; finally, by painting in color on a white or colored surface.

As before suggested, the patterns on the coiled, regularly indented pottery (which came to be first known to the world as a type, the "corrugated," through the earlier explorations and reports of Mr. William H. Holmes) were produced simply by emphasized indentation, more rarely by incision, and were almost invariably angular, reproducing exactly the designs on wicker work. Even in comparatively recent examples of the corrugated ware this is true; for, once connected with a type, a style of decoration, both seem to have been ever after inseparable, with at most but slight modification of the latter. One of these modifications, in both method and effect, was in the adoption of the raised or

relief style of ornamentation found, with rare exceptions in the Southwest, only on corrugated ware, and on the class which in modern times has replaced it there, vessels used in cookery. Although never universal, this style deserves passing attention as the outgrowth of an effort to attain the effect of contrast produced by dyed or painted splints on wicker work before the use of paint was known in connection with pottery. The same kind of investigation indicates that the Pueblos largely owed their textile industries and designs, as well as their potter's art, to the necessity which gave rise to the making of water-tight basketry. The terms connected with the rudimentary processes of weaving and embroidery, and the principal patterns of both (on, for example, blankets, kirtles, sacred girdles, and women's belts), are mostly susceptible of interpretation, like the terms in pottery, as having a meaning connected with the processes of basket plaiting and painting. This renders the conventional character of Pueblo textile ornaments easy of comprehension, as well as the very early, if not the earliest, origin of loom-weaving among our Indians in the desert regions of America.

Henceforward, then, we have only to consider decoration by painting. The probability is that this began as soon as the smooth surface in pottery was generally made; evidence of which seemingly exists; as eating bowls are, even to the present day, decorated principally on the interior; not, as may be supposed, because the exterior is more hidden from view, but because, as we have seen on a former page, bowls were made plain inside before the corrugated type formed on basket bottoms had been displaced by the smoothed type; and were naturally first decorated there with paint. It must be constantly borne in mind that a style of decoration once coupled with a kind of ware, or even a portion of a vessel, retained its association permanently.

It must have been early observed that clay of one kind, applied even thinly to the exterior of a vessel of another kind, produced, when burned, a different color. With the discovery that clays of different kinds burned in a variety of colors, to some extent irrespective of the methods and the materials used in firing, there must likewise have been hinted, we may safely conclude, the efficacy of clay washes as paint, and of paint as a decorative agent.

Among the ceramic remains from the oldest pueblo sites of the Southwest, pottery occurs, mostly in four varieties: the corrugated or spiral; the plain, yet rough gray; white decorated with geometric figures in black; and red, either plain or decorated with geometric devices in black and white. The gray or dingy brown, rough variety, resulted when a corrugated or coiled jar had been simply smoothed with the fingers and scraper before it was fired. A step in advance, easily and soon taken, was the additional smoothing of the vessel by slightly wetting and rubbing its outer surface. Even this was productive only of a moderately smooth surface, since, as learned by the Indian potters long before, in their experience with the clay-plastered parching-tray,

it was necessary to mix the clay of vessels with a tempering of sand, crushed potsherds, or the like, to prevent it from cracking while drying; this, of course, no amount of rubbing would remove. Hence, by another easy step, clay unmixed with a grit-tempering, made into a thin paste with water, and thickly applied to the half-dried jar with a dab or brush of soft fiber, gave a beautifully smooth surface, especially if polished afterward by rubbing with water-worn pebbles. The vessel thus prepared, when burned, assumed invariably a creamy, pure white, red-brown or, other color, according to the quality or kind of the clay used in making the paste with which it had been smoothed or washed.

Thus was achieved the art of producing at will fictiles of different colors, with which simple suggestion painting also became easy. Black, aside from clay paste, was almost the first pigment discovered; quite likely because the mineral blacks from iron ores, coal, and the various rocks used universally among Indians for staining splints, etc., would be the earliest tried, and then adopted, as they remained unchanged by firing. Thus it came about, as evidenced by the sequence of early remains in the Southwest, that the white and black varieties of pottery were the first made, then the red and black, and later the red with white and black decoration. Take, as an example, the latter. Of course it was a simple mode to employ the red (ocherous) clay for the wash, the blue clay (which burned white) for the white pigment in making lines, and any of the black minerals above mentioned for other marking.

In these earliest kinds of painted pottery the angular decorations of the corrugated ware or of basketry were repeated, or at the farthest only elaborated, although on some specimens the suggestions of the curved ornament already occurred. These resulted, I may not fear to claim, from carelessness or awkwardness in drawing, for instance, the corners of acute angles, which "cutting across-lot" would, it may be seen, produce the wavy or meandering line from the zigzag, the ellipsoid from the rectangle, and so on.

Precisely in accordance with this theory were the studies of my preceptor, the lamented Prof. Charles Fred. Hartt. In a paper "On Evolution in Ornament," published in several periodicals, among them the *Popular Science Monthly* of January, 1875, this gifted naturalist illustrated his studies by actual examples found on decorated burial urns from Marajó Island. I must take the liberty of suggesting, however, that upon some antecedent kind of vessel, the eyes of the Amazonian Islanders may have been, to give Professor Hartt's idea, "trained to take physiological and æsthetic delight in regularly recurring lines and dots"; not on the pottery itself, as he seemed to think, for decoration was old in basketry and the textiles when pottery was first made.

DECORATIVE SYMBOLISM.

On every class of food- and water-vessels, in collections of both ancient and modern Pueblo pottery (except, it is important to note, on pitchers and some sacred receptacles), it may be observed as a singular, yet almost constant feature, that encircling lines, often even ornamental

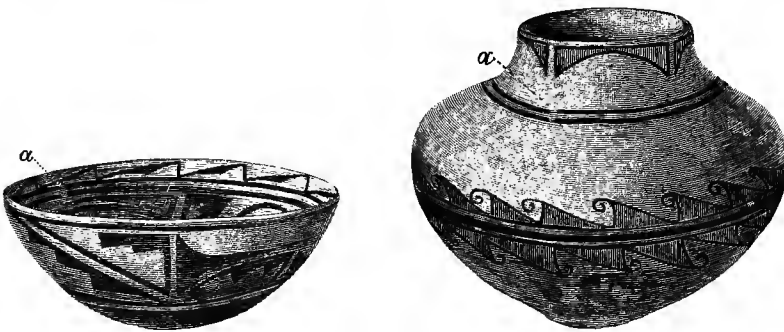


FIG. 545.—Food-bowl.

FIG. 546.—Water-jar.

(Showing open or unjoined space in line near rim.)

zones, are left open or not as it were closed at the ends. (See Figs. 545,*a*, 546,*a*.) This is clearly a conventional quality and seemingly of intentional significance. An explanation must be sought in various directions, and once found will be useful in guiding to an understanding of the symbolic element in Pueblo ceramic art. I asked the Indian women, when I saw them making these little spaces with great care, why they took so much pains to leave them open. They replied that to close them was *a'k ta ni*, "fearful!"—that this little space through the line or zone on a vessel was the "exit trail of life or being", *o' ne yäthl kwäi na*, and this was all. How it came to be first left open and why regarded as the "exit trail," they could not tell. If one studies the mythology of this people and their ways of thinking, then watches them closely, he will, however, get other clews. When a woman has made a vessel, dried, polished, and painted it, she will tell you with an air of relief that it is a "Made Beiug." Her statement is confirmed as a sort of article of faith, when you observe that as she places the vessel in the kiln, she also places in and beside it food. Evidently she vaguely gives something about the vessel a personal existence. The question arises how did these people come to regard food-receptacles or water-receptacles as possessed of or accompanied by conscious existences. I have found that the Zuñi argues actual and essential relationship from simi-

larity in the appearance, function, or other attributes of even generically diverse things.²

I here allude to this mental bias because it has both influenced the decoration of pottery and has been itself influenced by it. In the first place, the noise made by a pot when struck or when simmering on the fire is supposed to be the voice of its associated being. The clang of a pot when it breaks or suddenly cracks in burning is the cry of this being as it escapes or separates from the vessel. That it has departed is argued from the fact that the vase when cracked or fragmentary never resounds as it did when whole. This vague existence never cries out violently unprovoked; but it is supposed to acquire the power of doing so by imitation; hence, no one sings, whistles, or makes other strange or musical sounds resembling those of earthenware under the circumstances above described during the smoothing, polishing, painting, or other processes of finishing. The being thus incited, they think, would surely strive to come out, and would break the vessel in so doing. In this we find a partial explanation of the native belief that a pot is accompanied by a conscious existence. The rest of the solution of this problem in belief is involved in the native philosophy and worship of water. Water contains the source of continued life. The vessel holds the water; the source of life *accompanies* the water, hence its dwelling place is in the vessel with the water. Finally, the vessel is supposed to contain the treasured source, irrespective of the water—as do wells and springs, or even the places where they have been. If the encircling lines inside of the eating bowl, *outside* of the water jar, were closed, there would be no exit trail for this invisible source of life or for its influence or breath. Yet, why, it may be asked, must the source of life or its influence be provided with a trail by which to pass out from the vessel? In reply to this I will submit two considerations. It has been stated that on the earliest Southwestern potteries decoration was effected by incised or raised ornamentation. Any one who has often attempted to make vessels according to primitive methods as I have has found how difficult it is to smoothly join a line incised around a still soft clay pot, and that this difficulty is even greater when the ornamental band is laid on in relief. It would be a natural outgrowth of this predicament to leave the ends unjoined, which indeed the savage often did. When paint instead of incision or relief came to be the decorative agent, the lines or bands would be left unjoined in imitation. As those acquainted with Tylor's "Early History" will realize, a "myth of observation" like the above would come to be assigned in after ages.

²I would refer those who may wish to find this characteristic more fully set forth, to the introductory pages of my essay on Zuni Fetiches, published in the second volume of Contributions to North American Ethnology by the Bureau of Ethnology; also to a paper read before the American Academy of Sciences on the Relations to one another of the Zuni Mythologic and Sociologic Systems, published, I regret to say, without my revision, in the Popular Science Monthly, for July, 1882.

This may or may not be true of the case in question; for, as before observed, some classes of sacred receptacles, as well as the most ancient painted bowls, are not characterized by the unjoined lines. Whether true or not, it is an insufficient solution of the problem.

It is natural for the Pueblo to consider water as the prime source of life, or as accompanied by it, for without the presence of living water very few things grow in his desert land. During many a drought chronicled in his oral annals, plants, animals, and men have died as of a contagious scourge. Naturally, therefore, he has come to regard water as the milk of adults, to speak of it as such, and as the all-sufficient nourishment which the earth (in his conception of it as the mother of men) yields. In the times when his was a race of cliff and mesa dwellers, the most common vessel appertaining to his daily life was the flat-bellied canteen or water carrier. (See Fig. 547.) This was suspended by a band across the

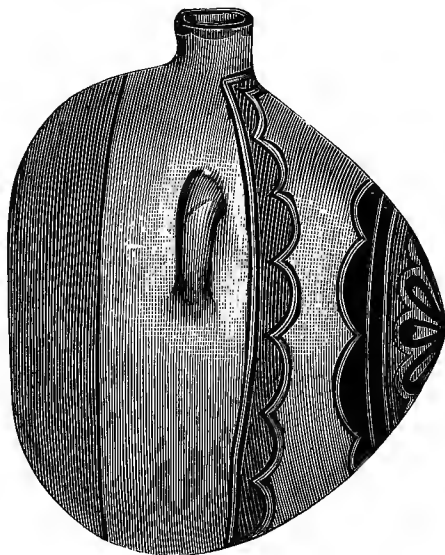


FIG. 547.—Conical or flat-bellied canteen.

forehead, so as to hang against the back, thus leaving the hands as well as the feet free for assistance in climbing. It now survives only for use on long journeys or at camps distant from water. The original suggestion of its form seems to have been that of the human mammary gland, or perhaps its peculiar form may have suggested a relationship between the two. (Compare Figs. 548, 549.) At any rate, its name in Zuñi is *me' he ton ne*, while *me' ha na* is the name of the human mammary gland. *Me' he ton ne* is from *me' ha na*, mamma, *e' ton nai e*, containing within, and *to'm me*. From *me' ha na* comes *wo' ha na*, hanging or placed against anything, obviously because the mammaries hang or are placed against the breast; or, possibly, *mé ha na* may be derived

from *wó ha na* by a reversal of reasoning, which view does not affect the argument in question. It is probable that the *me' he ton* was at first left open at the apex (Fig. 549, *a*) instead of at the top (Fig. 549, *b*); but, being found liable to leak when furnished with the aperture so low, this was closed. A surviving superstition inclines me to this view. When a Zuñi woman has completed the *me' he ton* nearly to the apex, by the coiling-process, and before she has inserted the nozzle (Fig. 549, *b*), she prepares a little wedge of clay, and, as she closes the apex with it, she turns her eyes away. If you ask her why she does this, she will tell you that it is *a'k ta ni* (fearful) to look at the vessel while closing it at this



FIG. 548.



FIG. 549.

Conical canteen compared with human mammary gland.

point; that, if she look at it during this operation, she will be liable to become barren; or that, if children be born to her, they will die during infancy; or that she may be stricken with blindness; or those who drink from the vessel will be afflicted with disease and wasting away! My impression is that, reasoning from analogy (which with these people means actual relationship or connection, it will be remembered), the Zuñi woman supposes that by closing the apex of this *artificial* mamma she closes the exit-way for the "source of life;" further, that the woman who closes this exit-way knowingly (in her own sight, that is) voluntarily closes the exit-way for the source of life in her *own* mammæ; further still, that for this reason the privilege of bearing infants may be taken away from her, or at any rate (experience showing the fallacy of this philosophy) she deserves the loss of the sense (sight) which enabled her to "*knowingly*" close the exit-way of the source of life.

By that tenacity of conservative reasoning which is a marked mental characteristic of the sedentary Pueblo, other types of the canteen, of later origin, not only retained the name-root of this primeval form, but also its attributed functions. For example, the *me' wi k'i lik ton ne* (See Fig. 550) is named thus from *me we*, mammaries, *i ki lik to' e'*, joined together by a neck, and *to'm me*.

Now, when closing the ends (Fig. 550, *c, c*) of this curious vessel in molding it, the women are as careful to turn the eyes away as in closing the apex of the older form. As the resemblance of either of the ends of this vessel to the mamma is not striking, they place on either side of the nozzle a pair of little conical projections, resembling the teats, and so called. (Fig. 550, *b*.) There are four of these, instead of, as we might reasonably expect, two. The reason for this seems to be that the *me' wi k'i lik ton ne* is the canteen designed for use by the hunter in preference to all other vessels, because it may be easily wrapped in a blanket and tied to the back. Other forms would not do, as the hunter must have the free use not only of his hands but also of his head, that he may turn quickly this way or that in looking for or watching game. The proper nourishment of the hunter is the game he kills; hence, the source of his life, like that of the young of this game, is symbolized in the canteen by the mammaries, not of human beings, but of game-animals. A feature in these canteens dependent upon all this brings us nearer to an understanding of the question under discussion. When

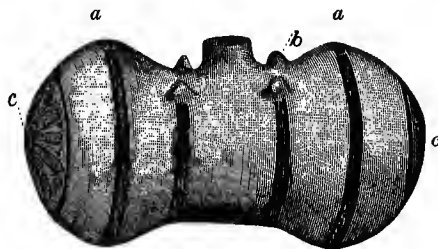


FIG. 550.—Double lobed or hunter canteen.

ornamental bands are painted around either end of the neck of one of them (Fig. 550, *b*), they are interrupted at the little projections (Fig. 550, *b*,). Indeed, I have observed specimens on which these lines, if placed farther out, were interrupted at the top (Fig. 550, *a a*) opposite the little projections. So, by analogy, it would seem the Pueblos came to regard paint, like clay, a barrier to the exit of the source of life. This idea of the source of life once associated with the canteen would readily become connected with the water-jar, which, if not the offspring of the canteen, at least usurped its place in the household economy of these people. From the water-jar it would pass naturally to drinking-vessels and eating-bowls, explaining the absence of the interrupted lines on the oldest of these and their constant occurrence on recent and modern examples; for the painted lines being left open at the apexes, or near the projections on the canteens, they should also be unjoined on other vessels with which the same ideas were associated.

So, also, it will be observed that in paintings of animals there is not only a line drawn from the mouth to the plainly depicted heart, but a

little space is left down the center or either side of this line (see Figs. 551, 552), which is called the *o ne yäthl kwa' to na*, or the "entrance trail" (of the source or breath of life).



FIG. 551.—Painting of deer.



FIG. 552.—Painting of sea-serpent.

By this long and involved examination of *one* element in the symbolism of Pueblo ceramic decoration, we gain some idea how many others not quite so striking, yet equally curious, grew up; how, also, they might be explained. Their investigation, however, would be attended with such intricate studies, involving so many subjects not at sight related to the one in hand, that I must hasten to present two other points.

Much wonder has been expressed that the Pueblos, so advanced in pottery decoration, have not attempted more representations of natural objects. There is less ground for this wonder than at first appears. It should be remembered that the original angular models which the Pueblo had, out of which to develop his art, bequeathed to him an extremely conventional conception of things. This, added to his peculiar way of interpreting relationship and personifying phenomena and even functions, has resulted in making his depictions obscure. In point of fact, in the decoration of certain classes of his pottery he has attempted the reproduction of almost everything and of every phenomenon in nature held as sacred or mysterious by him. On certain other classes he has developed, imitatively, many typical decorations which now have no special symbolism, but which once had definite significance; and, finally, he has sometimes relegated definite meanings to designs which at first had no significance, except as decorative agents, afterward using them according to this interpretation in his attempts to delineate natural objects, their phenomena, and functions. I will illustrate by examples, the last point first.

Going back to basketry, we find already the fully developed fret. (See Fig. 553.) I doubt not that from this was evolved, in accordance with Professor Hartt's theory, the scroll or volute as it appears later on pottery. (See Figs. 554, 555.) To both of these designs, and modifications of them ages later, the Pueblo has attached meanings. Those who have visited the Southwest and ridden over the wide, barren plains, during late autumn or early spring, have been astonished to find traced on the sand by no visible agency, perfect concentric circles and scrolls or volutes yards long and as regular as though drawn by a skilled artist.

The circles are made by the wind driving partly broken weed-stalks around and around their places of attachment, until the fibers by which they are anchored sever and the stalks are blown away. The volutes are formed by the stems of red-top grass and of a round-topped variety of the *chenopodium*, drifted onward by the whirlwind yet around and around their bushy adhesive tops. The Pueblos, observing these marks, especially that they are abundant after a wind storm, have wondered at their similarity to the painted scrolls on the pottery of their ancestors. Even to-day they believe the sand marks to be the tracks of the whirlwind, which is a God in their mythology of such distinctive personality

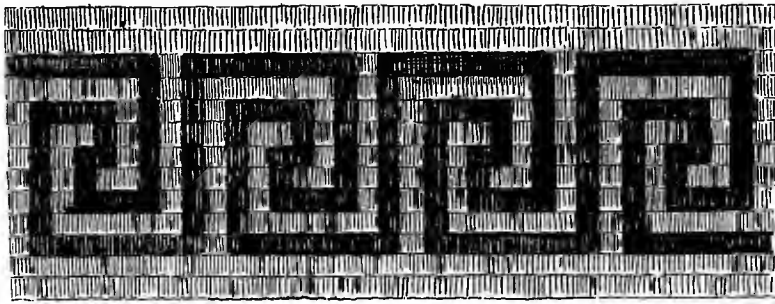


FIG. 553.—The fret of basket decoration.



FIG. 554.—The fret of pottery decoration.



FIG. 555.—Scroll as evolved from fret in pottery decoration.

that the circling eagle is supposed to be related to him. They have naturally, therefore, explained the analogy above noted by the inference that their ancestors, in painting the volute, had intended to symbolize the whirlwind by representing his tracks. Thenceforward the scroll was drawn on certain classes of pottery to represent the whirlwind, modifications of it (for instance, by the color-sign belonging to any one of the "six regions") to signify other personified winds. So, also, the semicircle is classed as emblematic of the rainbow (*a' mi to lan ne*); the, obtuse angle, as of the sky (*a' po yan ne*); the zigzag line as lightning (*wi' lo an ne*); terraces as the sky horizons (*a'wi thlui a we*), and modi-

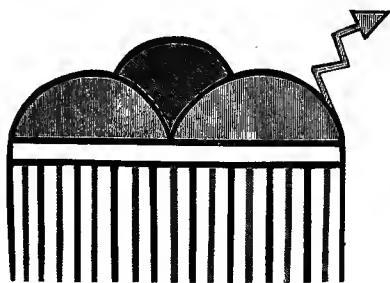
fications of the latter as the mythic "ancient sacred place of the spaces" (*Te' thlä shi na kwän*), and so on.

By combining several of these elementary symbols in a single device, sometimes a mythic idea was beautifully expressed. Take, as an example, the rain totem adopted by the late Lewis H. Morgan as a title illumination, from Maj. J. W. Powell, who received it from the Moki Pueblos of Arizona as a token of his induction into the rain gens of

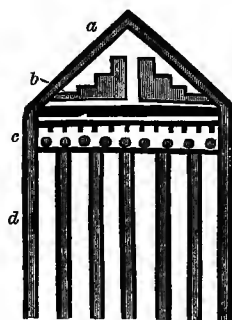


FIG. 556.—Ancient Pueblo "medicine-jar."

that people. (See Fig. 557, *a*.) An earlier and simpler form of this occurs on a very ancient "sacred medicine jar" which I found in the Southwest. (See Fig. 556.) By reference to an enlarged drawing of the chief decoration of this jar (see Fig. 557), it may be seen that the sky, *a*, the ancient place of the spaces (region of the sky gods), *b*, the cloud lines, *c*, and the falling rain, *d*, are combined and depicted to symbolize



a. Modern Moki rain symbol.



b. Enlarged decoration of "medicine-jar."

FIG. 557.—Decoration of ancient medicine-jar compared with rain symbol of modern Moki totem.

the storm, which was the objective of the exhortations, rituals, and ceremonies to which the jar was an appurtenance.

Thus, upon all sacred vessels, from the drums of the esoteric medicine societies of the priesthood and all vases pertaining to them to the ceramic appurtenances of the sacred dance or *Ká' ká*, all decorations were intentionally emblematic. Of this numerous class of vessels, I will choose but one for illustration—the prayer-meal-bowl of the *Ká' ká*.

In this, both form and ornamentation are significant. (See Fig. 558.) In explaining how the form of this vessel is held to be symbolic I will quote a passage from the "creation myth" as I rendered it in an article on the origin of corn, belonging to a series on "Zuñi Breadstuff," published this year in the "Millstone" of Indianapolis, Indiana. "Is not the bowl the emblem of the earth, our mother? For from her we draw both food and drink, as a babe draws nourishment from the breast of its mother; and round, as is the rim of a bowl, so is the horizon, terraced with mountains whence rise the clouds." This alludes to a medicine bowl, not to one of the handled kind, but I will apply it as far as it goes to the latter. The two terraces on either side of the handle (Fig. 558, *a a*) are in representation of the "ancient sacred place of the spaces," the handle being the line of the sky, and sometimes painted with the rainbow figure. Now the decorations are a trifle more complex. We may readily perceive that they represent tadpoles (Fig. 558, *b b*), dragon-flies (Fig. 558, *c c*), with also the frog or toad (Fig. 558); all this is of

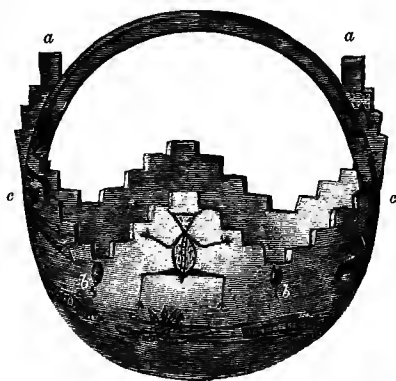


FIG. 558.—Zuñi prayer-meal-bowl.

easy interpretation. As the tadpole frequents the pools of spring time he has been adopted as the symbol of spring rains; the dragon-fly hovers over pools in summer, hence typifies the rains of summer; and the frog, maturing in them later, symbolizes the rains of the later seasons; for all these pools are due to rain fall. When, sometimes, the figure of the sacred butterfly (see Fig. 559, *a b*) replaces that of the dragon-fly, or alternates with it, it symbolizes the beneficence of summer; since, by a reverse order of reasoning, the Zuñis think that the butterflies and migratory birds (see Fig. 560) *bring* the warm season from the "Land of everlasting summer."

Upon vessels of special function, like these we have just noticed, peculiar figures may be regarded as emblematic; on other classes, no matter how evidently conventional and expressive decorations may seem, excepting always, totemic designs, it is wise to use great caution in their interpretation as intentional and not merely imitative.

A general examination, even of the most modern of Pueblo pottery,

shows us that certain types of decoration have once been confined to certain types of vessels, all which has its due signification but an examination of which would properly form the subject of another essay.

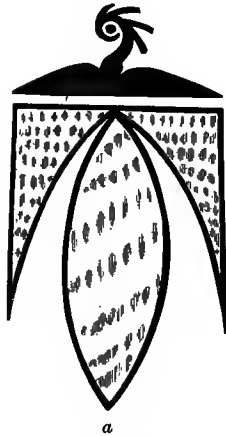


FIG. 550.—Paintings of sacred butterfly.

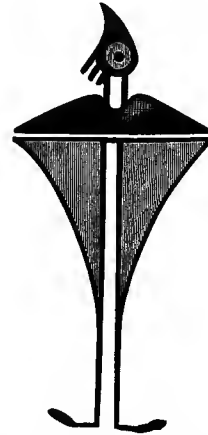
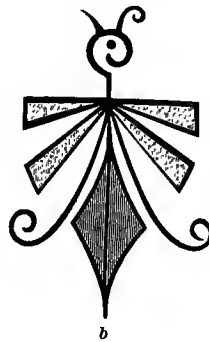


FIG. 560.—Painting of "summer-bird."

Happily, a work collateral to the one which I have here merely begun, will, I have reason to hope, be carried to a high degree of perfection in the forthcoming monographs on the exhaustless ceramic collections of the United States National Museum by Mr. William H. Holmes. This author and artist will approach his task from a standpoint differing from mine, reaching thereby, it may be, conclusions at variance with the foregoing; but by means of his wealth of material and illustration students will have opportunity of passing a judgment upon the merits of not only his work, but of my own.

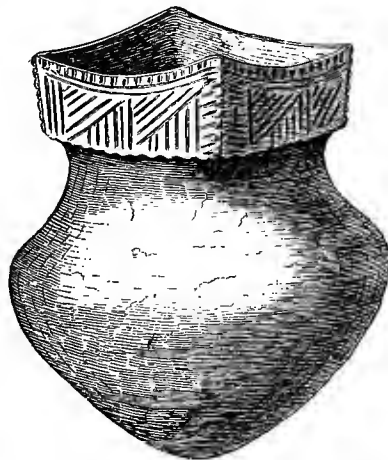


FIG. 561.—Rectangular type of earthen vessel.

In conclusion, let me very briefly refer to two distinctive American types of pottery, unconnected with the Southwestern, which, considered

in conjunction with those of the latter region, seem to me to indicate that the ceramic art has had independent centers of origin in America. For the sake of convenience, I may name these types the rectangular (see Fig. 561) or Iroquois, and the bisymmetrical or kidney-shaped (see Fig. 562), of Nicaragua. The one is almost constant in the lake regions of the United States, the other equally constant in sections of Central America. In collections gathered from any tribe of our Algonquin or Iroquois

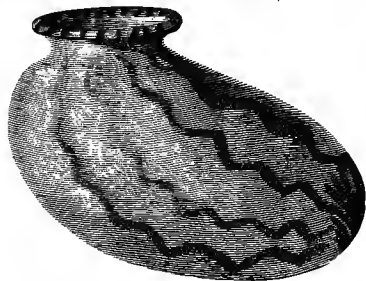


FIG. 562.—Kidney-shaped vessel, Nicaragua.

Indians, one may observe vessels of the tough birch- or linden-bark, some of which are spherical or hemispherical. To produce this form of utensil from a single piece of bark, it is necessary to cut pieces out of the margin and fold it. Each fold, when stitched together in the shaping of the vessel, forms a corner at the upper part. (See Fig. 563.) These corners and the borders which they form are decorated with short lines

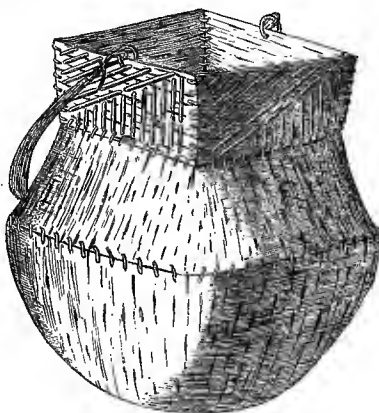


FIG. 563.—Iroquois bark-vessel.

and combinations of lines, composed of coarse embroideries with dyed porcupine quills. (See Fig. 564.) May not the bark vessel have given rise to the rectangular type of pottery and its quill ornamentation to the incised straight-line decorations? (Compare Fig. 561.)

So, too, in the unsymmetrical urns of Central and Isthmean America, which are characterized by the location of the aperture at the upper part

of one of the extremities and by streak-like decorations, we have a decided suggestion of the animal paunch or bladder and of the visible veins on its surface when distended.

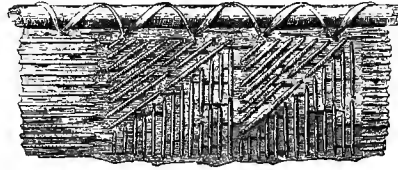


FIG. 564.—Porcupine-quill decoration.

If these conjectures be accepted as approximately correct, even in tendency, we may hope by a patient study of the ceramic remains of a people, no matter where situated, to discover what was the type of their pre-ceramic vessels, and thereby we might also learn whether, at the time of the origin of the potter's art or during its development, they had, like the Pueblos, been indigenous to the areas in which they were found, or whether they had, like some of the Central Americans, (to make a concrete example and judge it by this method) apparently immigrated in part from desert North America, in part from the wilderness of an equatorial region in South America.

